

REVIEWS



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F4 MACRO G OSS II



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Volume 19 • Issue 12 • March 2024

# Smart Photography



Interview

**Chet Kamat**

Photo Feature

**Steve Winter**

**Postcards from Slovenia and Croatia**

Special

**Old Memories**

Showcase

**Concert Photography**

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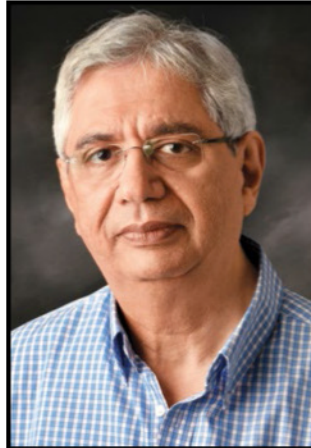
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Just like vinyl, is film poised to make a comeback? The likelihood of Pentax making a film camera has triggered a lot of speculation that film cameras are poised to make a comeback. After all, the second hand market is flush with mint film cameras and second hand prices are very attractive to those on a budget. Further, Fujifilm, Kodak and Ilford continue to make film. Also, it is much easier to digitize film now than before. What is our opinion? Well, we can see film cameras having a niche in the market but mainstream? No. However, never say never!

One of our veteran readers firmly believes that Photoshop killed Photography. Not really. After all, changes to colour and exposure could also be done when processing film. Maybe, it is now much more sophisticated.

**H. S. Billimoria**

## HERE'S WHAT MAKES US

# #1

### WE ARE GLUED TO THE GLOBAL IMAGING INDUSTRY

Our team is updated with all the benchmarks and road blocks that the field of photography and imaging across the globe experiences. This helps us record the changes in the global perspective, thus making us the first to predict which products will be a rage in the Indian markets.

### WE'RE IMPARTIAL

Loyalty towards our readers is a given, and their best interests are always on our mind. Every verdict is honest and not influenced by advertisers or personal favourites. So when we say a product is a 'BEST BUY', then, it is just that!

### OUR TESTS ARE CONDUCTED BY EXPERTS

All equipment go through a series of tests at the hands of our experts. Our reviewers are experts in the field of photography across the country and have many years of experience. That gives us the foresight to distinguish between a passing trend and a big change in the field of photography and imaging. And finally, our reviews are not extended to just fill up the pages!

### WE ARE HERE TO HELP YOU

There is no debate on why we are here. Our sole goal is to provide you options and better your judgement in product purchase while, sharing tips and tricks to improve your images. Our biggest joy is in building a bridge between you and your perfect picture!

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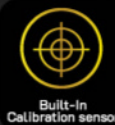
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Photographer: Chet Kamat



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# Z 8



Image courtesy - Harpreet Singh

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Nikon Z 8 Product Page



## Nikon announces wildlife contest



Nikon India kicked off its inaugural 'Wonders of the Wild' photography and videography contest in partnership with the Worldwide Fund for Nature - India (WWF-India). This one-and-a-half-month-long contest, open to wildlife enthusiasts across India until March 3, 2024, aims to celebrate the remarkable talents of photographers and videographers passionate about capturing the beauty of India's flora and fauna.

Entries will be evaluated by esteemed wildlife experts, including Mr. Shaaz Jung, Ms. Latika Nath, and Mr. Kallol Mukherjee. Participants can submit entries through the Nikon India website or Instagram, showcasing their creativity and storytelling skills. Exciting prizes worth INR 8 lakhs await the winners, including a Nikon Z 8 mirrorless camera as the grand prize, along with NIKKOR Z lenses for the runners-up.

Additionally, the top 10 entries will receive WWF-India Nature Store Merchandise. Nikon India encourages wildlife enthusiasts to participate in this thrilling contest, offering them a chance to showcase their talent and contribute to wildlife conservation efforts.



## Birla's photo exhibition wows Mumbai

The Dilip Piramal Art Gallery at NCPA, Mumbai, recently played host to an enthralling exhibition of wildlife photography by Sidharth Birla and his wife, Madhushree Birla. The event, which took place on February 7, 2024, saw the presence of esteemed dignitaries including Kumar Mangalam Birla, Hemendra Kothari, Sir Dinshaw, and Dilip Piramal. Titled 'Enchantment', the exhibition presented a mesmerizing collection of photographs that captured the essence and grandeur of the Savannah and its inhabitants. From majestic wildlife to breathtaking landscapes, each image transported viewers into the heart of nature, leaving a lasting impression.

Running until February 20, 'Enchantment' offered a unique experience for visitors, showcasing the power of both vibrant colours and striking black & white compositions. Alongside the vivid hues of the Savannah, the exhibition delved



into the soul-stirring depth of monochrome photography, prompting viewers to reflect on the profound beauty of nature. As guests marvelled at the stunning imagery, a poignant quote by Andri Cauldwell resonated throughout the gallery: "To see in black and white is a delight for the soul," encapsulating the profound impact of Birla's photographic journey.

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# Canon reports strong camera sales in 2023

Japanese tech giant Canon has revealed impressive year-on-year growth in camera sales and other product sectors, according to its latest financial report. With a revenue increase of 3.7% from 2022, Canon's full-year revenue for 2023 reached approximately 4.18 billion yen (\$28.335 billion), accompanied by an 8.4% rise in net profit.

The revenue surge was driven by Canon's four main business divisions: printing solutions, imaging, medical solutions, and industrial equipment/other products. Printing solutions accounted for the majority, generating 2.346 trillion yen (\$15.90 billion) and representing 56.1% of the brand's overall revenue. Notable products include the innovative color digital printer image PRESS V1350.

In the imaging sector, Canon saw a

revenue increase of 7.2%, totaling 861.6 billion yen (\$5.81 billion). This growth was propelled by strong demand for new interchangeable lens digital cameras like the EOS R6 Mark II, EOS R8, and EOS R50, alongside network cameras catering to diverse applications.

Meanwhile, Canon's medical business field experienced a revenue surge of 7.9%, reaching 553.8 billion yen (\$3.75 billion). Demand for MRI equipment, X-ray equipment, and ultrasonic diagnostic equipment contributed to this growth, particularly in Japan and Europe.

In contrast, Canon's industrial equipment division faced a slight decline, with revenue dropping by 4.4% to 314.7 billion yen (\$2.13 billion). While power equipment demand remained robust, fluctuations in market



investment impacted FPD exposure equipment sales. Despite challenges in the industrial equipment sector, Canon remains optimistic about its outlook for 2024, expecting continued growth driven by strong performances in printing, imaging, and medical solutions.

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## Cosmic debut for Nikon Z 9

Nikon has made history with the launch of its cutting-edge Nikon Z 9 mirrorless camera to the International Space Station (ISS), marking the first time a Nikon mirrorless camera will be utilized by astronauts in space. The Z 9, renowned for its unparalleled image quality and advanced technology, will enable NASA astronauts to capture stunning visuals of Earth and space with unprecedented clarity.

Multiple Nikon Z 9 bodies, accompanied by an impressive array of NIKKOR Z lenses, were transported to the ISS aboard the 20th Northrop Grumman commercial resupply services mission for NASA. Launched via the SpaceX Falcon 9 rocket from Cape Canaveral Space Force Station on January 30th, 2024, the Cygnus cargo spacecraft carried this essential photographic equipment to the orbiting laboratory.

Replacing the existing inventory of Nikon D6 and D5 digital SLR cameras, which have served on the space station since 2017, the Nikon Z 9 represents the latest evolution in Nikon's longstanding partnership with NASA. Since the Apollo 15 mission over 50 years ago, Nikon cameras and lenses have played a crucial role in capturing iconic images of space exploration, scientific research, and maintenance activities aboard the ISS.

The Nikon Z series, launched in 2018, has continually pushed the boundaries of innovation and reliability, with the Z 9 standing as the flagship model renowned for its robust build and next-generation technology. While the Z 9 used in space remains physically unchanged from its terrestrial counterpart, Nikon engineers collaborated with NASA to develop custom firmware tailored to the unique challenges of space exploration.



## Say hi to Fujifilm X100VI

Fujifilm announced the launch of its latest high-end compact digital camera, the "FUJIFILM X100VI" (X100VI), set to debut at the end of February 2024. The X100VI marks the newest addition to Fujifilm's esteemed X100 series, boasting a back-illuminated 40.2 MP sensor and the latest processor. Notably, it is the first model in the series to integrate an in-body image stabilization function, enhancing image quality and performance.

Since its inception in 2011 with the FUJIFILM X100, the X100 series has garnered global acclaim for its distinctive features, including the unique "Hybrid Viewfinder" that seamlessly transitions between optical and electronic systems, along with its sleek design and intuitive operation. The X100VI upholds these beloved characteristics while incorporating the advanced "X-Trans™ CMOS 5 HR" sensor and "X-Processor 5" image processing engine.

Moreover, the X100VI introduces a newly developed in-body image stabilization function, offering up to 6.0 stops of stabilization while maintaining a compact and lightweight body weighing approximately 521g. This versatility ensures optimal



performance in diverse photographic scenarios. Combining meticulous attention to design and operability with exceptional image quality, the X100VI promises to delight a broad spectrum of users, from professional photographers to enthusiasts, with the joy of photography. To commemorate Fujifilm's 90th anniversary, a Limited Edition X100VI will be released, featuring special packaging and exclusive accessories. Limited to just 1,934 units worldwide, this edition bears the company's founding logo and a unique serial number, underscoring its rarity. Interested buyers are encouraged to contact their local Fujifilm sales company for purchasing details.

# Micro four thirds sensor for smartphones

Prepare for a paradigm shift in the world of smartphones as the next image revolution looms, with credible reports suggesting the integration of large Micro Four Thirds sensors. This marks a potential revolution not only in the smartphone sector but across the entire camera market.

Multiple sources now indicate the imminent arrival of a new generation of Micro Four Thirds sensors, ranging from 44 to 100 megapixels, set to be implemented in smartphones. Weibo, among the sources, details the sensors per smartphone as follows:

- 4/3-inch 108Mp 1.4µm Nonacell Full-pixel DPAF (new ISOCELL, optimized quantum efficiency)
- 4/3-inch 80Mp 1.65µm QuadBayer Full-pixel 2×2 OCL AF (IMX472)

changes Mipi interface to reduce digital layer power consumption)

- 4/3 inch 50Mp 2.1µm 4-Cell Full-pixel 2×2 OCL AF WDR (LOFIC TheiaCel)
- 4/3-inch 44Mp 2.25µm Mask-PD AF VDGS (Pregius S II)

The challenges are apparent, with the need to implement such a 'giant' sensor in a smartphone body being the primary obstacle. Additionally, managing the heat generated by the extensive processor presents another hurdle. However, overcoming these challenges is a matter of time and technological advancement. The term 'Four-Thirds' originates from the size and format of the image sensor developed by Olympus in collaboration with Panasonic. In contrast to the 35-millimeter film and APS-C-sized

sensors used by other major camera brands, the Four-Thirds system employs a 4:3 ratio for its image sensor.

The Micro Four Thirds sensor's diagonal length is approximately half that of a 35-millimeter film negative, resulting in a crop factor of exactly 2. While the Micro Four Thirds format has seen reduced use due to a preference for shooting large formats, its potential to revolutionize videography in mobile phones is significant.

Anticipating the first Micro Four Thirds smartphone to emerge from China, possibly by 2024-2025, sets the stage for a potential revolution in videography. The prospect of an iPhone 18 equipped with a Micro Four Thirds image sensor could reshape the landscape of smartphone imaging in the coming years.

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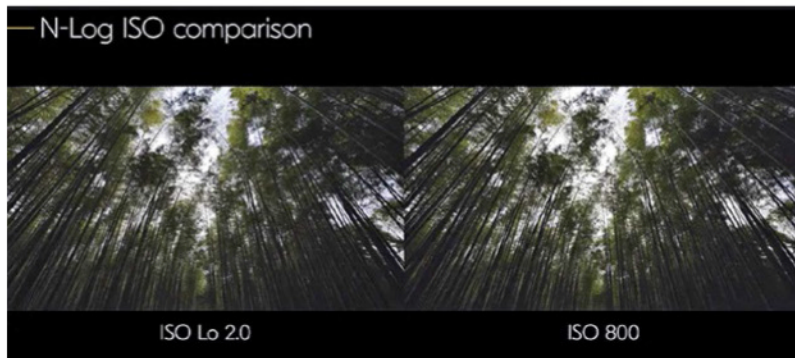
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## New tech reveals animal perspectives

A collaboration between researchers from the United States, United Kingdom, and Canada has yielded groundbreaking insights into how animals perceive the natural world. Utilizing innovative camera technology and software, the team has unlocked the ability to capture and replicate animal vision. Animal vision varies significantly due to differences in photoreceptors, posing a challenge to accurately emulate their perspective. For instance, while honeybees share trichromatic vision with humans, they can perceive UV light, unlike us. Similarly, birds, as tetrachromats, possess the ability to detect UV light. Driven by the fascination of understanding animals' visual experiences, the researchers developed this novel technology. Their objective, as outlined in the research paper's abstract, is to equip ecologists and filmmakers with the tools to record animal-perceived colors accurately. Beyond its scientific implications, the technology holds practical value, particularly in addressing bird collisions with windows and decals. In the United States alone, approximately 100 million birds perish annually due to collisions caused by their inability to detect reflective surfaces.

The new camera technology captures videos across UV, red, blue, and green channels, with data processed using Python to simulate animals' visual perceptions.



## Nikon Z 8 upgraded with Firmware 2.0

Nikon enthusiasts rejoice as the renowned camera manufacturer unveils firmware version 2.0 for its flagship full-frame/FX-format mirrorless camera, the Nikon Z 8. This significant update brings a plethora of highly anticipated features and enhancements, catering to the diverse needs of professional photographers and videographers alike.

At the heart of the firmware 2.0 upgrade lies the introduction of several flagship features, including the long-awaited In-Camera Slow-Motion video capability. This exciting addition empowers users to effortlessly capture captivating slow-motion footage with unparalleled precision and detail, eliminating the need for extensive post-processing and streamlining content creation.

Inheriting a dedicated [Bird] Detection Mode from the flagship Z 9 camera, firmware 2.0 revolutionizes bird photography and videography on the Nikon Z 8. This specialized mode significantly enhances autofocus detection and tracking of avian subjects, ensuring crisp and clear imagery even in challenging shooting conditions such as dense foliage or rapid movement.

Moreover, firmware 2.0 expands the N-Log Low ISO Sensitivity Range, enabling photographers to achieve richer tones and enhanced dynamic range in shadow areas while effectively suppressing noise. The introduction of AI-Integrated Auto Capture functionality further enhances user workflow by automatically triggering stills and videos



based on predefined criteria, offering newfound convenience and efficiency. Pixel Shift shooting makes its debut on the Nikon Z 8, allowing users to capture stunning images with unparalleled detail by utilizing in-camera VR technology to shift the image sensor position. With the ability to produce images of up to 180 megapixels, this feature is particularly well-suited for product photography, delivering exceptional clarity and fidelity.

Furthermore, firmware 2.0 introduces the highly acclaimed Pre-Release Capture mode and expands Hi-Res Zoom speed options, providing photographers with greater flexibility and control over their creative vision. Enhanced operability and functionality enhancements, including expanded custom control options and improved connectivity with accessories, round out this comprehensive update, solidifying the Nikon Z 8 as a formidable contender in the realm of mirrorless photography.

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# Wildlife Wonders : The Story Behind the Lens

## Sony FE 300mm F2.8 GM OSS

**Jayanth Sharma**, a former IT professional, transitioned to become a wildlife & natural history photographer in 2004 is a Sony Artisan too. He has traveled widely to countries like Canada, Finland, Norway, Brazil, Russia, Africa, and South East Asia producing stunning imagery and stories, while advocating for conserving India's vulnerable wildlife.



**Jayanth Sharma**

Jayanth Sharma, a Bangalore-based wildlife photographer, has received multiple awards for his work. He acquired a passion for photography at a young age, learning from his father. Leading the premier travel and photography company, Toehold, he offers high-quality, photography-focused travel experiences to enthusiasts worldwide.



The highly anticipated FE 300mm F2.8 G Master OSS lens delivers exceptional depiction performance and high-speed, precise autofocus, a hallmark of the G Master series. Weighing approximately 1470g with excellent weight distribution achieved through magnesium alloy construction for the barrel and an optical design placing

“Encountering gorillas in Rwanda with my Sony FE/SEL300mm F2.8 OSS lens made me appreciate the remarkable visual spectacle I was capturing. The bokeh, background, sharpness, and intricate details I observed were truly exceptional.”



most lens elements towards the rear, it offers improved balance and handling. This enables users to effortlessly capture sharp, dynamic moments, particularly in fast-paced wildlife scenarios, while its compatibility with lightweight camera bodies minimizes user fatigue.

With an impressive F2.8 aperture, the lens provides stunning bokeh and excellent low-light performance, perfect for wildlife photography. The built-in Optical SteadyShot (OSS) stabilization system ensures sharp images even in challenging conditions, while the innovative optical design includes Super ED glass elements to suppress chromatic aberration and ensure high resolution and contrast across the frame, producing beautiful, true-to-life colors.

The focal length of 300mm is ideal for a variety of shooting scenarios in wildlife and landscape photography. The autofocus system employs dual XD linear motors for high-speed continuous

shooting up to 120 frames per second and silent focusing, with a minimum focus distance of 2m and a focus limiter switch restricting the near range to 6m for shooting distant subjects. Full-time Direct Manual Focus allows photographers to override autofocus, while a power focus rocker ring enables constant-speed manual focus adjustments or other functions, including switching between full-frame and APS-C crop shooting modes.

Designed for mobility and comfortable operation, the lightweight FE 300mm F2.8 GM OSS lens is stable and agile, with enhanced viewfinder stability and customizable focus options. It features top-notch construction with high-quality materials providing durability, dust, moisture, and weather resistance, along with a fluorine coating.

With its fast and accurate autofocus system, this lens is a premium choice for professional photographers seeking the best in image quality, performance, and reliability. |SP



# POSTCARDS FROM SLOVENIA AND CROATIA

Church  
in hazy  
Lake Bled,  
Slovenia



**Vaibhav Jaguste** from Maharashtra, India, is a science graduate from the University of Mumbai. He served as the Vice President of The Photographic Society of India, Mumbai, from 2014 - 2018. Vaibhav is in the travel and tourism business. He is a self-taught photographer, interested in pictorial photography. He is a strong believer of the quote "Camera is the least important thing in Photography".



He is a regular participant in national and international photography competitions and has won over 100 awards & acceptances from 23 countries. His work is highly appreciated by The Federation of Indian Photography as well as several other international organisations all around the world. His solo photography exhibition named 'Hymns of Nature' was showcased in Dec'17 and his group exhibition named 'Rocks and Waves' was presented in Jan'2020 at India's prestigious Jehangir Art Gallery, Mumbai.

**W**hen planning travels to Europe, tourists often think about popular locations like Italy and Rome, but Europe has so much more to offer. Nestled in the Central Europe region, Slovenia and Croatia are beautiful countries filled with mountains, glacial lakes and vibrant towns. During my travels to these countries, we started our journey in Slovenia through the beautiful Gorenjska region after landing at Ljubljana International Airport. Our first day started with a sunrise photoshoot at the picturesque Lake Bled located at the foothills of Julians Alps with a Baroque-style church built in the centre of an island. We captured some stunning shots of the church

coming into view as the morning fog rolled away. As the sun rose, more light fell on the church and created a mysterious hazy effect on the lake.

We started the next day with our outing to the Vintgar Gorge where we hiked for an hour to see the beautifully lush forests and waterfalls. After exploring Vintgar Gorge, we drove to Bohinj Glacial Lake which had a very different composition as it was surrounded by agricultural lands. Here, due to a passing rainstorm, I was able to capture some stunning images of sheep on a meadow with soft light and shadows from the overcast sky. We also visited the beautiful Adriatic Bay of Koper in Slovenia to see sailboats swaying at



Sheep in a meadow, Slovenia



Sailboats at Kopar Bay, Slovenia



St. Primoz Church, Slovenia



the Bay. The following day, our route took us to the Vrsic Pass which is the highest pass in the Julian Alps, with incredible views across the Slovenian Alps. Here, we travelled down to the Soca River Valley to explore the Triglav National Park and captured its gorges and gushing waterfalls as we hiked along the riverbanks.

After a good rest, we left the Slovenian Alps and headed out to Istria, Croatia, stopping at the Church of Holy Trinity in Hrastovlje. On the next day, we started our journey to witness the beautiful sunrise in Rovinj along with continuing to see the Roman Amphitheatre at Pula. This 1st-century oval amphitheatre overlooks the harbour of the old town. It's a truly magnificent structure, slotted together entirely from local limestone and locally known as the Arena. Designed to host gladiatorial contests and seating up to 20,000 spectators, it still serves as a venue for concerts and film-festival screenings during the summer. After exploring the city of Istria, our group started at the most recognised natural wonder in the country of Croatia, the Plitvice Lakes National Park. This National Park, recognized as one of UNESCO World Heritage Sites, is known for its 16 continually changing, clear water lakes. What makes these lakes unique is that they are interconnected with basins where higher lakes deposit water to the lower ones with the help of gushing cascades and waterfalls. We were mesmerised by the greenery and turning of fall colours in the forests surrounding the waterfalls along with moss and algae. This area is a perfect spot to experiment with long exposure photography to capture the ever-flowing waterfalls across Plitvice NP. After spending two days around Plitvice and capturing serene water shots, we headed to nearby Rastoke village where the Korana river created another set of beautiful waterfalls and cascades. After a productive photography session in this beautiful village, we headed back to the Zagreb airport for our return journey with beautiful memories of the hidden gems of Croatia and Slovenia. |SP











A church in Istria, Croatia





Roman Amphitheatre, Pula, Croatia



Citiscap, Croatia





Plitvice National Park, Croatia







Waterfalls in Plitvice National Park





Rovinj, Croatia







# THE ART OF SEEING



**Chet Kamat**

I started my photography journey six years ago, while working a hectic schedule as a Managing Director & CEO of a successful listed multinational company with customers across 140 countries.

Since my recent

retirement, I am now able to pursue amateur photography full time, while also focussing on my family and mentoring a few start-up ventures. My approach to photography is characterized by continuous learning, meticulous planning, a keen eye for storytelling, and a commitment to capturing images that are not only technically proficient but also emotionally captivating. Recently I was on the jury for an international photography competition with entries from several thousand participants from over forty countries.

## As Told to Rohinton Mehta

### What are your favourite genres of photography?

For me, photography transcends mere point-and-click. It embodies selective vision, the mastery of perspective and composition, and a deep appreciation for the dance of light and shadow. This is not just about capturing an image but about guiding the viewer's gaze, crafting a journey through the frame that is both aesthetically pleasing and evocatively resonant.

My passion spans various genres of photography, each holding a unique allure. Wildlife photography captivates with its raw beauty and the thrilling unpredictability of

nature. Portrait photography, on the other hand, delves into the narrative depths, weaving stories through the tapestry of human emotion. Landscape photography invites one to bask in nature's grandeur, while documentary photography captures the unvarnished essence of daily life, presenting reality in its unfiltered form. Each genre, in its own right, offers a distinct lens through which to view the world, continually fuelling my love for this art form.

### How did you get into photography?

My journey into photography started six years ago, marked by a captivating trip to Kamchatka where I had the opportunity to photograph grizzly bears. This experience not only ignited a deep-seated passion for







photography but also set me on a path to explore the essence of nature and humanity through my lens. Starting at the age of fifty-six, I was determined to rapidly advance my skills. To achieve this, I have travelled with expert mentors, guides, and drivers, and dedicated extensive time to fieldwork, exploring various genres and destinations worldwide.

## ■ Which are your favourite haunts for photography?

My favourite destinations for wildlife photography are Maasai Mara, Jawai, and Corbett. For portrait photography, I find locations such as Pushkar and the Kumbh Mela in India particularly inspiring, thanks to the intriguing individuals I encounter there. Rural Bangladesh has proven to be a fruitful setting for my documentary-style photography. Additionally, I have relished capturing seascapes in Cyprus and Goa during the Covid pandemic.

## ■ What challenges / restrictions do you normally face when travelling – especially with regards to the weight limits by airlines?

Ensuring the safe transit of my camera gear means that I have to carry it as cabin baggage while travelling by air, which comes with weight restrictions and sometimes additional charges for cabin baggage. This requires careful selection of gear, considering both the weight restrictions and the need to carry it around during the trip and in the field. In parallel I have now become an expert at travelling with just essential 'non camera' baggage (clothes etc) and in using some of the lightest suitcases in the world so that I rarely have to pay for excess baggage.

## ■ What are the 'do's and don'ts's' to remember while visiting any wildlife / nature park?

When visiting wildlife or nature parks, I prefer to visit during weekdays to avoid crowds, especially outside of public holidays and vacation periods. It's crucial to respect the environment and wildlife by maintaining a safe distance,



















avoiding unnecessary noise, and following park rules. One should focus on enjoying the experience rather than just aiming for social media approval or competition wins. I like to remind myself, that a talented photographer can create unique and appealing frames with common subjects, not just predators.

■ **What are your views on image editing, especially with regards to wildlife photography?**

In my opinion, it's important to get the frame right in-camera to minimize the need for post-processing. However, I believe that creative edits in post-processing are acceptable as long as they are disclosed to the viewer, particularly in wildlife images where authenticity is crucial.

■ **What advice would you like to give to budding wildlife photographers?**

For aspiring wildlife photographers, I recommend dedicating considerable time to planning your expeditions, which should include selecting the location, determining

the optimal timing, and deciding on the most suitable vehicles. It's crucial to always have your camera ready in the field, as you never know when a photographic opportunity might arise. For example, I always carry a camera equipped with a 70-200mm lens, set to default settings suitable for capturing fast-moving subjects, such as a leopard darting across the trail. My go-to settings in decent lighting are f/5.6, 1/1000 sec, and auto ISO. It's important to review the first few shots of any sighting to adjust settings if needed. Pay attention to the entire frame and composition, not just the subject, to identify and correct potential issues directly in-camera, rather than relying on post-processing. If needed, change your position to get a better shot. Experiment with both landscape and portrait orientations, and aim to shoot from as low a perspective as possible, ideally at your subject's eye level. Frame your shots slightly wider than necessary to allow for cropping during editing.

In areas where multiple vehicles are present, such as parks, you may not always secure the ideal spot. Remain patient and make the most of the situation. Partnering with experienced drivers and guides who can predict animal behaviour based on their expertise is beneficial; it's preferable to have animals approach you rather than stressing them by following closely with your vehicle.

Study the work of renowned photographers to gain insight into capturing unique and impactful images, and strive to develop a recognizable personal style. Concentrate on honing your skills in-camera to minimize the reliance on post-processing, and maintain respect for the wildlife and habitats you photograph.

Embrace the challenges of wildlife photography as opportunities for continuous learning and improvement, knowing that this demanding but rewarding field can bring great fulfilment. |SP







# UNVEILING THE ENIGMA

*Steve Winter's Quest for Big Cat Conservation*



**Steve Winter** has been a photographer for National Geographic for over two decades, he specializes in wildlife, and particularly, big cats. He is a Nat Geo Explorer and he's been named BBC Wildlife Photographer of the Year and BBC Wildlife Photojournalist of the Year. He was a two-time winner of Picture of the Year International's Global Vision Award and won 1st prize in the nature story category from World Press Photo in 2008 and 2014. And won 2nd prize in World Press Photo 2020 in the Contemporary Issues category. He has appeared on 60 Minutes, CBS Nightly News, NPR, BBC, CNN, NG WILD and other media outlets. He speaks globally on big cats and conservation for Nat Geo LIVE.



**Steve Winter**

[@stevewinterphoto](https://www.instagram.com/stevewinterphoto)  
[www.stevewinterphoto.com](http://www.stevewinterphoto.com)

Words : **Girish Mallya**

**E**mbark on a journey with Steve Winter, where purpose and passion intertwine to form a captivating narrative centered around the preservation of big cats. For over two decades, as a wildlife photojournalist and explorer for National Geographic, Steve has delved into the realms of some of the planet's most enigmatic creatures, specializing in big cats.

His riveting documentary films on jaguars, leopards, tigers, and tree-climbing lions have graced screens on Nat Geo Wild and Disney+ networks, garnering international acclaim and numerous prestigious awards. From the heart-stopping wilderness of steamy jungles to the frigid heights of the Himalayas, Steve's relentless pursuit of unique behaviors offers a rare glimpse into the lives of these iconic predators.

Collaborating closely with scientists and conservationists, Steve brings to light the urgent challenges facing big cats worldwide. Alongside his wife, award-winning science journalist Sharon Guynup, and fellow Changemaker Bertie Gregory, Steve co-founded Big Cat Voices—a nonprofit organization dedicated to amplifying the stories of these majestic creatures and catalyzing tangible change.

Through his lens, Steve has ignited global movements, from championing wildlife overpasses to thwarting wildlife trafficking and advocating for legislative reforms. As Steve aptly puts it, "I didn't choose big cats, they chose me. Now I'm trying to help protect them." In essence, the preservation of big cats mirrors our own quest for survival—a testament to the interconnectedness of all life on Earth. **SP**





























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# OLD MEMORIES

Pop star Michael Jackson during a concert in Bombay. (November 1, 1996)



**Mukesh Parpiani**

**Mukesh Parpiani** is a familiar name in the photojournalism fraternity. Currently, he works as the curator at The Dilip Piramal Art Gallery in Mumbai.

Mukesh started his professional career as a photographer with 'The Daily' in 1981. During his stint at The Daily, he photographed many political leaders and celebrities. Seeing his good work, Mukesh was offered the job of a Photo Editor at The Indian Express for their seventeen editions. During his time there, he covered several historical events of significance nationally and internationally. His hard work paid off as this time he was offered a job at the afternoon tabloid Mid-Day as the Photo Editor. Under his tutelage, many young

individuals became renowned documentary photographers and photojournalists.

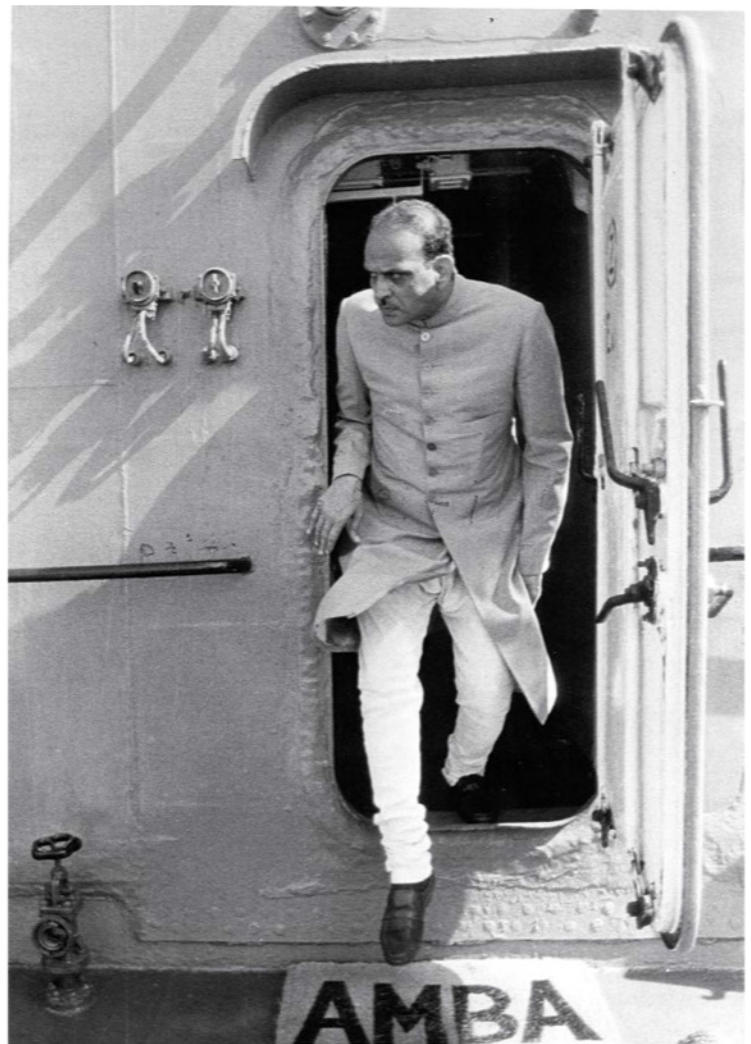
In 2009, Khushroo Suntook, Chairman of the National Centre for the Performing Arts (NCPA), offered him to head the Piramal Art Gallery (now known as the Dilip Piramal Art gallery). As the Curator, Mukesh continues his life-long love to promote photographic art and educate the next generation of photographers. He has organised over 250 talks, workshops, exhibitions, and seminars to disseminate photography.

Smart Photography brings to you some of Mukesh Parpiani's exquisite work as a photojournalist.





16-year-old Sachin Tendulkar during India's tour of New Zealand in 1990. During that tour Sachin missed being the youngest cricketer to score a Test century by 12 runs



Defence minister V.P. Singh on board submarine INS Amba (mid-1987)



A street artist paints a picture of Saibaba (March 1983)





JRD Tata alighting from an airplane on the 50th anniversary of Tata Airlines-Air India (15th October 1982)





Stockbrokers inside the new convention hall of The Bombay Stock Exchange (BSE) building during the Diwali 'muhurat' trading. (in the 1990s)



The first all-women crew - Ms Shradha, Ms Mithaiwala, CMD - Mr R Prasad, Capt. Ms Deshmukh, Capt. Ms Bhasin, Ms Josephine & Ms Saraswati, Indian Airlines (1989)





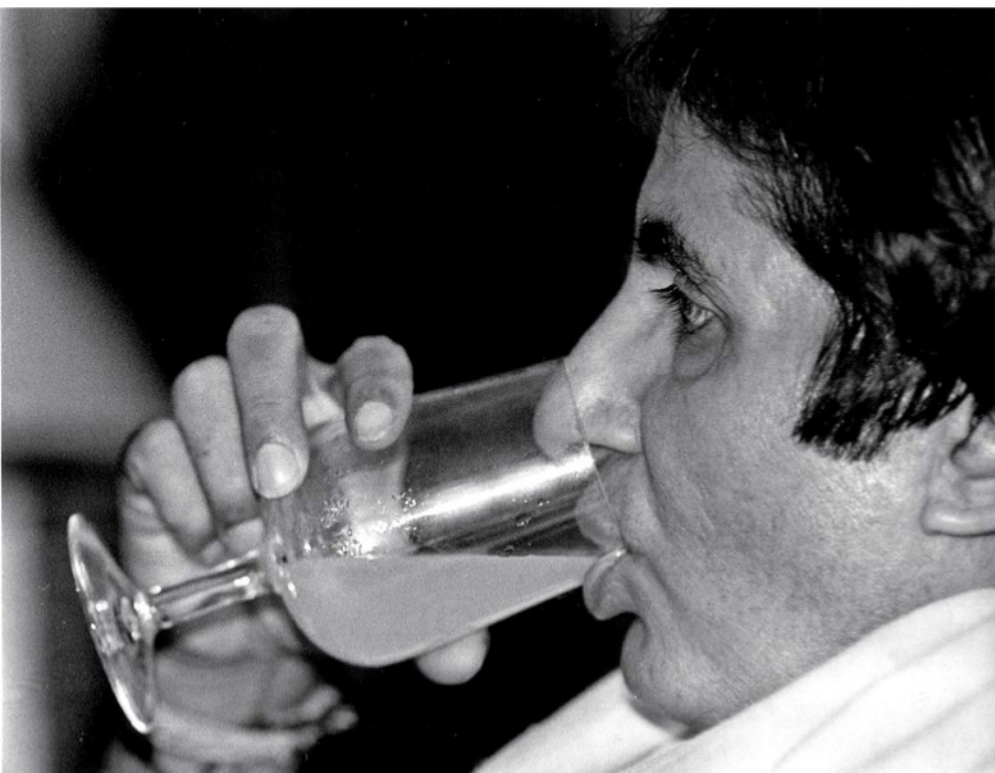
A handicapped beggar plays the clarinet sitting on a road divider (May 1983)



Indian master blaster, Sachin Tendulkar, the God of Cricket, with his wife Anjali.



Bollywood superstar Amitabh Bachchan sipping juice at his Pratiksha bungalow during a photo shoot (October 1995)



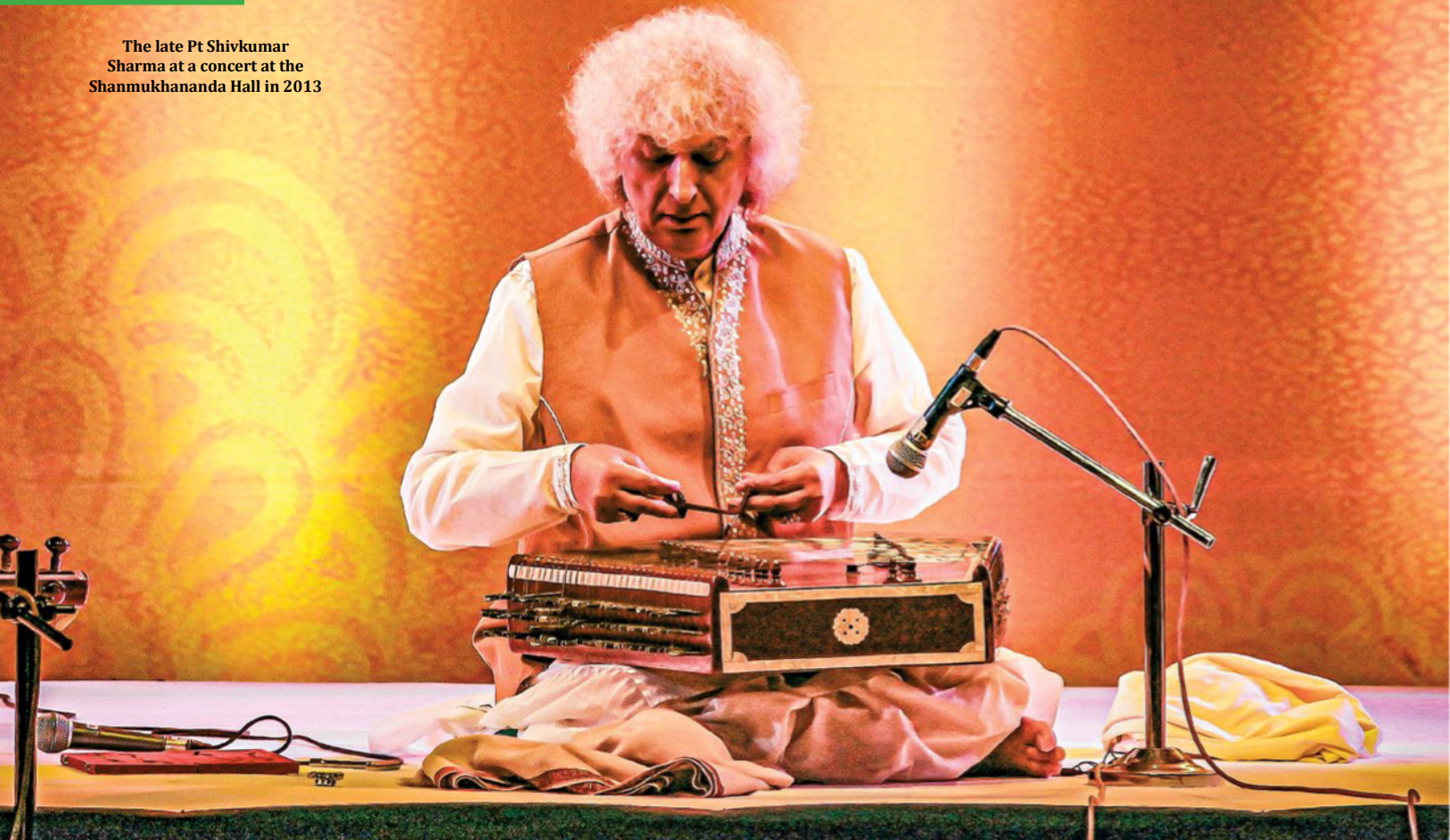
Hollywood actress Demi Moore in Mumbai in March 1996.



Surekha Yadav, India's first female locomotive driver (1988)



The late Pt Shivkumar  
Sharma at a concert at the  
Shanmukhananda Hall in 2013



# CONCERT PHOTOGRAPHY

*Life as a music photographer can be pretty incredible*

**Verus Ferreira** is a well known senior music journalist, who began writing soon after completing college, with the popular youth magazine The Teenager; now The Teenager Today.

As a freelance music journalist, he has a world of experience with the Indian media. As a correspondent, he has regularly contributed music-related articles to various newspapers to glossy magazines. He has also dabbled into photography and his photographs have appeared in several newspapers and magazines, thus graduating him into a photo-journalist.

He is also author of two books The Great Music Quiz Book and The Great Rock Music Quiz Book, both available at major book stores and online platforms.

He has over three decades of work experience. He is also the Founder of the music portal [www.musicunplugged.in](http://www.musicunplugged.in) Do also visit him at [www.verusferreira.com](http://www.verusferreira.com)

 [verus.ferreira](https://www.instagram.com/verus.ferreira)

He presently writes for the Free Press Journal newspaper.



**Verus Ferreira**

**U**nlike food, fashion, travel or even portrait studio photography, where time is on hand, music photography, lose a moment and you have lost it forever. Music photography requires you to constantly move around the perimeter of the stage to capture the artist and band and sometimes the crowd too. Response has to be quick, as the music is sometimes slow to fast paced with the artist moving to sing, dance or moving along the stage. Lighting can be another dampener, bright to low lights, colored lights, fog or smoke screens, make it all the more difficult to get the right shot.

But the good part is while doing your job, you enjoy spending time with some awesome music artists, listening to their music, travelling to different places of the country to watch them and the best of all, capturing the artists for posterity on your camera, can give you a totally different high. For me, music photography is a dream career, stemming from my work as a music journalist over the last 30 years.

Music photography also demonstrates how to capture an artists' personality through photography. |SP





Sitarist Ravi Chary performs at the Lost Party in Mugaon (near Lavasa) in 2015



Slash of Guns N' Roses with his band Myles Kennedy and the Conspirators at the Jio World Drive, BKC, Mumbai in 2016



American guitarist Steve Vai performing at Phoenix Market city, Kurla, as part of his Inviolable India Tour 2023



Brit singer Ed Sheeran Live at the FLY Music Festival at Mahalaxmi Race Course, Mumbai in 2015



Usha Uthup live in concert at Nehru Centre, Worli, Mumbai in 2023



Chris Martin of Coldplay with AR Rehman at the Global Citizen India at the MMRDA grounds, Mumbai in 2017



Vengaboys perform at a concert at Dublin Square, Phoenix Market city, Mumbai in 2015





Folk singer Mame Khan from Rajasthan at the Paddy Fields Folk Festival at Nesco, Goregaon, Mumbai in 2016



Assamese singer Angaraag Mahanta, aka Papon performing at NH7 Weekender, Pune in 2016





Singer - songwriter Vishal Dadlani of rock band Pentagram at the SulaFest, Nashik in 2016

Anoushka Shankar performing at the Shanmukhananda Hall in 2016



Kailash Kher with his band Kailasa, performing at the SulaFest in Nashik in 2016





Shubha Mudgal performing at the Paddy Fields Folk Festival at Nesco, Goregaon, Mumbai in 2017



American singer Beth Hart performing at the Mahindra Blues Festival, Mehboob studios, Bandra, Mumbai in 2019





Jimmy Thackery and the Drivers performing at the Mahindra Blues Festival, Mehboob studio, Bandra, Mumbai in 2013



Liz Mitchell of Boney M performing at Dublin Square, Phoenix Market city, Mumbai in 2015



Tabla maestro Ustad Zakir Hussain performs at an event at SNTD auditorium, Juhu, Mumbai in 2019



Brit singer – actress Joss Stone performing at the Mahindra Blues Festival, Mehboob studio, Bandra, Mumbai in 2016



American rapper – singer – songwriter Flo Rida performing at the Enchanted Valley Carnival at Aamby Valley in 2016



Lead singer Palash Sen of Euphoria and band celebrating 25 years, performing at Dublin Square, Phoenix Market city, Kurla, Mumbai in 2024.



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# PRINTING AND BEYOND



**VIMAL PARMAR**, Digital Print Evangelist



**H. SATISH**





**Vimal Parmar**  
An independent marketing consultant and digital print evangelist with over 40 years of experience in the imaging industry.  
@vimalparmar

## In Focus: Photographer H. Satish of Bengaluru – His Artistry, Achievements, and Love for Print

**Dear Readers,**

Continuing with my series of featuring photographers who love to print, this month we have H. Satish from Bengaluru. Amongst the photography fraternity in India, especially some of the best photography clubs that we have, Satish is a well-known name. His interest spans, wildlife, macro, landscape, people, and a lot more. Since I will not be able to do justice in introducing H. Satish, I have invited another equally illustrious photographer and a close friend of Satish, Mohammed Arfan Asif (@arfan\_asif\_photography), to do the honours and this is what he has to say:

“H. Satish is a master craftsman with a remarkable portfolio of nature and pictorial photographs. His exemplary images have adorned exhibitions and galleries worldwide. Satish has been honoured with international distinctions and honorary titles from prestigious photographic organizations. He is the first Indian to be awarded two Master titles for nature photography: the ‘Maitre’ from the International Federation of Photographic Art (MFIAP) and the ‘Master’ title from Image Colleague Society International, USA (MICS). Additionally, he has received the ‘Associateship’ distinction (ARPS) for nature photography from The Royal Photographic Society, UK, and the ‘Excellence’ (EFIAP) distinction from the International Federation of Photographic Art.

His outstanding images, coupled with his contribution to the propagation of photography to a generation of photographers, have been acknowledged with various

honorary titles from photographic organizations and societies in the USA, Greece, Canada, Romania, and India. Satish has been honoured by the Karnataka Lalit Kala Academy with the ‘State Artist’ title for his achievements in photography. The 1075+ awards, including gold medals from China, Scotland, Austria, Finland, USA, Romania, and France, are a testament to his perseverance and hard work over four decades of passionate photography.

Satish has served as a jury member for 32 International and 46 National photography salons/exhibitions. In addition to his work being published in numerous magazines and guidebooks, he has undertaken photographic assignments for Karnataka Tourism and conducted workshops for amateur photographers interested in nature and wildlife photography.

A member of the Youth Photographic Society (YPS), Bengaluru for more than four decades, Satish, during his term as President, led YPS to significant progress and accolades, establishing it as the top photography club in the country. Satish continues his photographic sojourn with even more intensity, aiming to present unique vistas of nature.

If a photographer of the calibre of Satish prints his pictures regularly, I suppose we have no reason not to print. Satish has recently published four coffee table books which have been featured in the next few pages. Enjoy the visuals!

**Warm Regards,**  
**Vimal Parmar**



# A Renowned Photographer, Reflects on a Passionate Career Spanning Analog to Digital Eras and Advocates for the Power of Printed Images

## H. SATISH

Bengaluru

 @hsatishblr

**L**et me share a little tale about how I stumbled into photography. In my youth, at the tender age of 12, my sister's wedding unfolded without a designated photographer. Amidst the wedding preparations, my brother Gowri Shankar handed me his Minolta range finder and flash, urging me to capture the festivities. He emphasized the importance of not chopping off heads in the pictures. To everyone's surprise, about 90% of the images turned out to be perfect. Encouraged by this, he frequently lent me his camera and film, fuelling my budding interest in photography.

I started my journey as a trained cinematographer, eventually transitioning into a commercial photographer. I occasionally delve into wedding photography, averaging about 10 to 12 weddings a year. Interestingly, 90% of my clients opt for printed wedding albums. I have been part of this captivating field since 1981, fortunate to straddle both analogue and digital imaging eras.

Speaking of my initial foray into photobooks, credit goes to my then 14-year-old son, Akshay, who won a photography competition in 2009—a prize that included a photobook. He prompted me to utilize this offer, leading to the creation of my first book. I printed a photobook showcasing my wildlife images in 8x12 inches. In 2015, I went on a photo tour with well-known photographer Anup Sah to Uttarakhand. On my return, I created a photo book and gifted it to him. Fast forward to 2023, where I printed four coffee table books on four different topics.

People usually ask me how they should go about creating their first photobook. My response to them is, first and foremost our photobook should be of a subject that is close to our heart or one that we are either an expert or know the subject well. It is only then that we can do justice to the book. Next, the quality of images. Not just the visual quality but the technical aspect too – For example, the resolution of each image should be high and of the specs and quality as required by the printer including the way each image is processed and finally saved.

As shared earlier, I recently completed a set of four books, each measuring 9x12 inches with 60 pages (excluding the cover). Each book features 58 images apart from my bio and credit lines. These were captured with a Nikon D-850 DSLR and Nikkor lenses (ranging from 24 mm to 600 mm prime) between the years 2010 and 2023. These four books are on wildlife, birds, macro, and landscapes, which are my favourite subjects. I conceived the idea two months ago, spent one and a half months on selection and editing, and printed the books in a day at Super Foto DG X Press in Bangalore ([www.PrintOvate.in](http://www.PrintOvate.in)) on



an HP Indigo digital press. I chose tear-resistant NovaLife media by TechNova, for durability. As a media manufacturer, they were also kind enough to sponsor the publication.

The reason why I printed four books this time is that I often give presentations on my photography and conduct workshops. Having just one book on a specific topic is not sufficient for these occasions. I aim to showcase a wide variety of subjects to fellow photographers. Additionally, for my personal collection, I wanted to compile books on every subject I love. I opted for the Size 9x12 inches, as it is convenient to handle. I strongly believe in the power of printing photographs, and it also serves as motivation for the members of the photography club I am associated with to consider creating their own photobooks.

Looking ahead, the subjects for my next photobook will include topics such as product photography and portraits. I plan to publish at least 4 to 5 photobooks every year for personal use. However, for my clients, I consistently print wedding albums for them.

People often ask me why I choose to print in this digital age. The fact is, there are no words to express the feeling of holding your





Family members going through the photo books



YPS members going through various photo books

printed images in your hands and admiring them. The feel of the substrate, the large size, and the minute details that one can see in each image must be experienced. Truth is, we cannot enjoy the image quality on a PC, laptop or mobile as much as we can in a print.

I started making my own black and white prints way back in 1986-87 and continued until 2006. I loved making prints in 12x18 inches size in the analogue days and continued to do so once digital took over. As of this date, I have over 800 manually printed images with me, which I used to send to photography salons earlier - both black and white and colour. So, even today, in this digital age, I cannot emphasize how much I still love prints.

Being very particular about colours, in the earlier analogue era, for colour prints, I used to visit a colour lab where I would also be present while prints were made to monitor the quality. All black and white prints were done personally by me in my own darkroom. And now, with digital printing being the norm, I go to various labs that give me the option of sitting with the print operator while my images are being printed. It is just out of sheer habit that I like to see my prints taking birth, but one need not do that currently. The entire pipeline being digital, from capture to print, and good colour labs know their work thoroughly, so one can depend on them entirely.

However good your pictures are and however good the print and binding quality is, the final layout, which includes how each page spread is presented, creates a final impact and it matters a lot. A bad layout can kill a book! For designing my book, I sought the help of a friend, Raj Simha, who is a well-known graphic designer. I gave him total freedom to design the book according to his taste, and I must admit that he has done brilliant work. He has given importance to every picture with just a single-line caption in most cases.

By now, 800-plus people, primarily photographers, have seen my book, and their response has been overwhelmingly positive. Many were initially awestruck. A common sentiment among them was the realization of what they had been missing by not printing their own pictures, let alone creating a photobook. Surprisingly, only a few had ever made prints

in 8x12 inches throughout their entire lives! After viewing my four books, they are now inspired to create photobooks featuring their own images.

My advice to photographers, both professional and amateur, is to print their own pictures from time to time. Unless they create prints of a larger size, they will never truly appreciate the quality of their pictures. Electronic media is only for selection, while print media is for perfection. One can master the "Art of Photography" only by having their images printed. I urge every photographer to try printing their images at least once. It is only then that they will understand the true value of a print. And there are good colour labs across the length and breadth of our country.

I will also encourage budding photographers to join a photography club in their city. The importance of group photo walks and physical meetings matters a lot for the exchange of ideas and learning. Several photography clubs in India believe in the power of printing photographs. I joined the Youth Photography Society (YPS) during my college years in 1981 at the age of 16, subsequently becoming one of its senior members. Over the years, my journey has been marked by continuous learning and active participation. From delving into Salon photography to achieving numerous distinctions, my passion for the art led me to conduct workshops and programs from 1990 onwards.

I dedicated seven years, serving as the Secretary, Vice President, and finally, President until March 2023. Under my leadership, YPS underwent transformative changes, establishing itself as the top Photography club in India. The financial self-sustainability of the society, the publication of ad-free Coffee table books, and the elevation of YPS's international presence were among the milestones achieved from 2016 to 2023. At YPS, we continue to promote the printing of photographs among our members because we believe in the power of print.

I would like to sign off by sharing my favourite quote from the legendary landscape photographer Ansel Adams, who said, "The negative is the equivalent of the composer's score, and the print is the performance."



Four books published on four different subjects in the year 2023



First coffee table book published in the year 2009



Introductory page



Back cover design





Select inside pages





# LEARNINGS

## LEARNING

### Portrait Photography

#### Part I

**Ashok Kandamla** has been a professional portrait photographer for over 15 years. He has extensive experience in both digital and film photography. He has worked as a portrait photographer for prominent corporate and individual clients. He has also worked as a portrait photographer for various NGOs and social causes. He is a member of the Indian Professional Photographers Association (IPPA) and the Indian Society of Professional Photographers (ISPP). He is also a member of the Indian Association of Professional Photographers (IAPP). He is a frequent speaker at photography workshops and seminars. He has also written several articles on portrait photography for various photography magazines and websites. He can be reached at [kandamla@gmail.com](mailto:kandamla@gmail.com).



Figure 1: A formal studio portrait.

Anyone who has wielded a camera has likely captured an image of another person. However, can we categorize all such photographs as portraits? Probably not, as many are merely snapshots. Therefore, what defines a portrait, and how does it differ from a snapshot? Let us start by looking at the definition of a portrait by referring to our trusty encyclopedia. Wikipedia defines a portrait as "A portrait is a painting, photograph, sculpture, or other artistic representation of a person, in which the face and its expression are predominant. The intent is to display the likeness, personality, and even the mood of the person." The critical words here are "artistic representation" as these are the ones that separate a portrait from a snapshot.

If that is the definition of a portrait, how to proceed to create one photographically is the subject of this article. Since a portrait has to have artistic merit, you need to have a correct approach to create it. Plus, like any photograph, it needs to have a proper composition and lighting. Let's explore a bit more to understand what all this means.

While there is no formal method of defining types of portraits, let us for our understanding, broadly classify as follows. These are –

- Formal
- Informal
- Environmental
- Candid



Figure 2: The portrait is set within a studio setting.



Figure 3: An environmental portrait of a vegetable vendor. The surrounding scene supports the subject.

Many portraits taken intentionally with the knowledge of the subject, fall under the category of formal portraits (Picture 1). Hence, by this definition, most studio portraits fall in this category. Normally the subject "poses" for the portrait. In some cases, the photographer creates a photograph to convey a theme – like a sportsman, a corporate honcho, and so on by choosing suitable props. Lighting plays an important role here and you will see later how to set up lighting for a formal portrait.

Informal portraits, unlike candid portraits, are taken with the knowledge of the subject but the subject may not be formally attired or the surroundings set up to convey a theme. They are usually taken outside a studio setting. See Picture 2 for an example. Many candid photographs taken of friends and family members fall under this category but most often degenerate into mere snapshots. By paying a little attention to lighting, composition, and a few other aspects, you can take some very nice informal portraits with minimal equipment.

Environmental portraits (Picture 3) as the name itself suggests try to portray a person along with the environment he or she is working. Examples are a vendor in his shop, an artist in his studio, etc. Most of the time these portraits are created at the workplace itself, though a suitable environment can be simulated in a studio too. Compared to other

portraits, the environment (background, foreground, and surroundings) plays an important role in environmental portraits since you intend to show the "context". However, even the surroundings must support and must be subservient to the main subject.

Candid portraits (Picture 4) are taken without the subject being aware that he or she is being photographed. In other

words, they are not "staged" like a formal portrait. Note that the subject can even be known to you, the real requirement being that the subject is unaware that he or she is being photographed at that instant. Many candid portraits are taken of unknown people, especially while doing street photography. Many press photographs fall under this category sometimes giving it a bad name – you heard of paparazzi, isn't it?



Figure 4: A candid portrait. Keeping your eyes open and being prepared for the best opportunities to capture candid photographs. Note the opportunity to use an already existing light source (the shop's light) to help define the photograph differently from others.

## LEARNING

### WHITE BALANCE

#### Rohinton Mehta

There are several photographers who are mystified by the term White Balance. So, what exactly is White Balance? How does it help us? Is it necessary to set the "correct" WB? What happens if we set a wrong WB for the scene we are photographing? Let's try and answer these questions.

Let us say that you are photographing a person who is wearing white clothes and you are photographing the subject under yellow coloured light. Will his white clothes remain white? No. His white clothes will appear yellowish (unless you have adjusted the WB). We say that the subject has a yellow colour cast.

Similarly, as an experiment, you light up one side of a subject's face with blue light and the other side of the face with red coloured light. The face will exhibit one side as blue and the other as red. These experiments tell us that whatever is the colour of the source of light, will be the colour in the photo.

If you photograph the Taj Mahal in the late evening hours, the white Taj Mahal

will appear yellowish. So the question is, do you want to show what your eyes see when you look at the photo (yellowish Taj), or do you want to show the actual (white) colour of the Taj? If you prefer the later (original colour), then you would have to remove the yellow from the Taj. This is exactly what White Balance does.

So we can sum it up this way: **White Balance is the correction applied to make a scene appear to have been shot in neutral coloured light even though the original scene was shot in coloured light.**

Digital cameras offer a choice of various WB settings: Auto, Daylight, Cloudy, Shade, Incandescent, Fluorescent, Flash, and Choose Colour Temperature (the naming can vary with different camera manufacturers).

So far so good.

There is yet another term that we need to know. It is known as **Colour Temperature**. Colour temperature refers to the colour of light and is

mentioned in kelvin (K). To keep the waffle free of technical jargon (as far as possible), we shall not go into the physics of the topic. Even then, we need to know that when a hypothetical black body is heated, it emits different colours depending on how much heat is applied to it. When it is heated to approximately 1800K (approximately 1577 degrees Celsius (Kelvin, minus 273.15 equals degree Celsius)), the colour of the light emitted by it is equivalent to the colour of a candle flame (you see, it is just a comparison).

Here is a short list of kelvin temperatures for few different light sources:

- Candle light – 1800K
- Sunrise/sunset – 2000K
- Incandescent light – 2700 to 3000K (depends on the wattage of the bulb)
- Moonlight – 4100K
- Daylight – 5500K (Neutral coloured light; generally, between 11 am to 3.30 pm, depending on your geographical location and weather conditions)
- Cool white LED bulbs – 6500K
- Cloudy day – 7000K (bluish)

- Clear blue sky – 10,000K (Please note that the figures above are not written in stone. They can vary depending on your geographical location)

Note that this is something counterintuitive because we always think that blue has less temperature and red more. However, scientifically it is incorrect; just look at a gas stove that is at its maximum setting and it gives out a blue flame but a candle that is at a much lower temperature has a reddish flame!

Now there is one more "tricky" thing you need to know. The WB setting in camera that you set is an instruction to the camera, telling it the temperature of the light source. So, if you set the camera to Incandescent, then you are telling that the light source is at around 3000K which is reddish. What the camera does now, while processing the image is that, it will add blue so as to neutralize the red. So, far so good.

- **Is it necessary to set the "correct" WB?**  
Yes and No – for a technically correct rendition, yes; for an artistic representation, no.
- **What happens if we set a**

#### wrong WB for the scene we are photographing?

As an example, let us take that the actual light source is Daylight and is at 5500K. Let us say you have set the camera to Incandescent. Recall that this is an instruction to the camera asking to add blue to neutralize the red. However, there is no red in the light source now which is at 5500K. Hence there is no red to be neutralized and the picture will exhibit excessive blue cast.

So, this gives rise to an interesting paradox. If your camera WB setting is at a lower temperature than the actual source, you will see excessive blue as explained. Likewise, if your camera WB setting is at a higher temperature than the actual source, your picture will exhibit excessive red cast! No doubt this is a bit confusing, but that is how it is!

We sometimes do this for creative effects, especially to create a very warm effect.

- **Can we not always set our camera to Auto WB?**  
Many photographers do just that.

Modern cameras are so well tuned that in most conditions, they provide neutral or near-neutral colours. But for greater accuracy, we should shoot in Raw. When you shoot in Raw, you have the option to change the WB in your Raw Converter (Adobe Camera Raw, for example) to what you like.

Remember, White Balance is a matter of your personal taste; it is not always necessary that all photos be neutral in colour. I may prefer warmer colours in a landscape while you might prefer a cooler colour. People in Eastern countries prefer a slightly yellowish skin tone, in Western countries, they prefer a slightly pinkish skin tone. I must add here that if you are photographing commercial products or interiors, your client will expect neutral colours.

Now that you are well informed, please try and put the knowledge in practice and enjoy your creations.

Note: All photos are by Ashok Kandamla and were shot using LED lights (6500K). <sup>1</sup>



Auto



Daylight



# Portrait Photography

## Part I

**Ashok Kandimalla** has been in the photographic field for over three decades and has extensive experience in both film and digital photography. Being an electronics engineer by profession and a photographer, he possesses a unique and deep insight into the technical aspects of digital photography and equipment. He has published more than a 100 articles on photography and some of his writings have also been published in the well-known international magazine *Popular Photography*. An avid collector of photographic books and vintage cameras, Ashok has a keen interest in the history of photography and a passion for sharing his knowledge on photography through teaching and writing. He is the only Indian photographer to be featured on the Nikon Centenary website. He is presently working as a Management and Engineering consultant. He can be reached at [kashokk@gmail.com](mailto:kashokk@gmail.com).



**Ashok  
Kandimalla**

Anyone who has wielded a camera has likely captured an image of another person. However, can we categorize all such photographs as portraits? Probably not, as many are merely snapshots. Therefore, what defines a portrait, and how does it differ from a snapshot? Let us start by looking at the definition of a portrait by referring to our trusty encyclopedia. Wikipedia defines a portrait as “A portrait is a painting, photograph, sculpture, or other artistic representation of a person, in which the face and its expression are predominant. The intent is to display the likeness, personality, and even the mood of the person.” The critical words here are - “artistic representation” as these are the ones that separate a portrait from a snapshot.

If that is the definition of a portrait, how to proceed to create one photographically is the subject of this article. Since a portrait has to have artistic merit, you need to have a correct approach to create it. Plus like any photograph, it needs to have a proper composition and lighting. Let’s explore a bit more to understand what all this means

While there is no formal method of defining ‘types of portraits’ let us for our understanding, broadly classify as follows. These are -

- Formal
- Informal
- Environmental
- Candid



**Picture 1 :**  
A formal  
studio  
portrait.



**Picture 2 :**  
This photograph  
was taken in  
a shop at the  
request of  
the subject.





**Picture 3 :**  
An environmental portrait of a vegetable seller. The surrounding scene supports the subject.

Many portraits taken intentionally with the knowledge of the subject, fall under the category of formal portraits (Picture 1). Hence, by this definition, most studio portraits fall in this category. Normally the subject “poses” for the portrait. In some cases, the photographer creates a photograph to convey a theme - like a sportsman, a corporate honcho, and so on by choosing suitable props. Lighting plays an important role here and you will see later how to set up lighting for a formal portrait.

Informal portraits, unlike candid portraits, are taken with the knowledge of the subject but the subject may be not formally attired or the surroundings set up to convey a theme. They are invariably taken outside a studio setting. See Picture 2 for an example. Many casual photographs taken of friends and family members fall under this category but most often degenerate into mere snapshots. By paying a little attention to lighting, composition, and a few other aspects, you can take some very nice informal portraits with minimal equipment.

Environmental portraits (Picture 3) as the name itself suggests try to portray a person along with the environment he or she is working. Examples are a vendor in his shop, an artist in his studio, etc. Most of the time these portraits are created at the workplace itself, though a suitable environment can be simulated in a studio too. Compared to other

portraits, the environment (background, foreground, and surroundings) plays an important role in environmental portraits since you intend to show the ‘context’. However, even here the surroundings must support and must be subservient to the main subject.

Candid portraits (Picture 4) are taken without the subject being aware that he or she is being photographed. In other

words, they are not “staged” like a formal portrait. Note that the subject can even be known to you, the real requirement being that the subject is unaware that he or she is being photographed at that instant. Many candid portraits are taken of unknown people, especially while doing street photography. Many press photographs fall under this category sometimes giving it a bad name – you heard of paparazzi, isn’t it?



**Picture 4 :**  
A candid portrait. Keeping your eyes open and being alert are the basic prerequisites of candid photography. Seize the opportunity as soon as you identify it. This lady was a tea picker. A long focal length allowed me to photograph discreetly from a distance.



Note that this classification is not something very rigid. There could be some overlap too. For example, there could be a candid portrait that could also combine elements of the environment.

While those are some of the important approaches to portraiture, how do you go about creating portraits? First, let us look at the equipment (camera, lenses, various light sources, backgrounds, etc.) you need, then the type of lighting in portraiture, positioning of the camera, etc. Part II of this article includes a portrait project, explained step by step, for you to do over a weekend as well as some guidelines and tips to help you create good quality portraits.

**Equipment**

Creating high-quality portraits requires only basic equipment. Even a simple point and shoot (P&S) camera or a smartphone will be enough to create very nice portraits. In fact, a small camera with a good zoom range is ideal for candid portraits since it is unobtrusive and will not shout out your presence as a big camera would! A DSLR or MLC is of course a much more versatile instrument that gives you a much greater choice of lenses. You can also exercise greater control on depth of field (DOF) with these due to their large sensors and fast lenses. Most importantly a DSLR/MLC will provide the best image quality, especially in low light conditions. Of the two, MLCs are preferred especially for street and candid portraits due to their smaller size.

**Lenses :** A short telephoto lens is a good choice for close (head and shoulder) portraits. If you take such a portrait with a short focal length (wide-angle) lens, you will need to go very close to the subject to fill the frame. This will cause an exaggerated perspective (this is not distortion, but an optical phenomenon, mind you) making protruding features

like a nose look abnormally large! Moving away from the subject sufficiently will improve the perspective with any lens, but for a head and shoulder shot the image of the subject will become too small in the frame when you use a wide-angle lens. You can increase the size of the subject in the frame by cropping but this will result in reduced picture quality.

This is a limitation that you must keep in mind when photographing with smartphones as these are typically equipped with wide-angle lenses and trying to fill the frame for a head and shoulder portrait will force you to go close, thus resulting in an odd-looking portrait. This is also the reason why in many selfies, features look bloated as you are holding the smartphone at a short distance. The solution as indicated is to switch to a longer focal length lens on your smartphone and move away from the subject.

Wide-angle lenses (including those on smartphones) however, can be used successfully for environmental portraits since the camera will be sufficiently far away to include the subject along with the surroundings.

Using a short telephoto lens will allow you to move farther from the subject thus improving the perspective. Recall that perspective is improving since you are increasing the subject distance not because you are using a longer focal length lens. At the same time, the longer focal length of the short telephoto will increase the size of the subject while allowing a frame-filling head and shoulder photograph. Some photographers even use telephoto lenses with very long focal lengths (200 mm and above) but the problem with these is that you will have to be very far from the subject, making communication between you and the subject difficult.

Generally, while a portrait should have a sharply rendered face the background should be unobtrusive and blurry unless you are making an environmental portrait. This can be achieved by limiting the DOF by using wide apertures that is, small f/ numbers around f/2.8 or even less. As you know lenses with small f/ numbers like (f/1.4 to f/2.8) are called fast lenses. One more factor favoring short telephoto lenses is that you can get fast lenses of this type at reasonable prices. These are also not unduly large and hence easily handholdable. Hence, all things considered, short telephoto lenses are best for portraits. Remember that most P&S cameras and smartphones will not give shallow DOF and hence you will not be able to get blurry backgrounds with these.

When taking candid portraits, you are likely to be in situations that are not entirely under your control. You may not have room to position yourself or time to change lenses. Hence, to provide greater flexibility, it is better to have a zoom lens with longer focal lengths (up to 200 mm). This will help you maintain a discreet distance as well.

**Lights:** Lighting plays an important role in any genre of photography – after all photography means drawing with light! Portrait photography is no exception and if you start reading a book on portraiture you will find many setups have no less than five lights. This is enough to put off most people! However, it is not necessary to spend a fortune on lights to get your feet wet. You don't need any artificial lights at all! You can simply use window light (the window should preferably face north or south) and you will get lovely, natural, and soft light free! All you need is a reflector which can be as simple as a Styrofoam sheet or even a white paper. Most candid photography is done with available light.

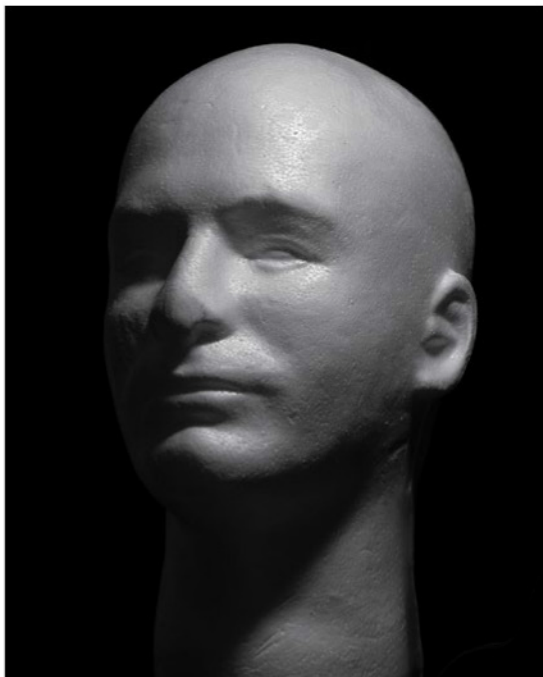
**Table 1 will give you an idea of suitable focal lengths for various types of portraits.**

Table 1 – Lens focal length in mm				
Camera Format	Head and Shoulders Portrait	Full Length Portraits	Environmental or Group Portraits	Candid
Full Frame DSLRs or MLCs	85 to 135	50	28 to 50	50 to 200
APS-C DSLRs or MLCs	50 to 75	35	18 to 35	35 to 150

If you want greater control and more sophisticated lighting you can invest in artificial lights. Three types are now common - LED, portable strobes (or flashes – made by camera manufacturers as well 3rd parties), and studio strobes. Of these, the first has the advantage of being low cost, continuous sources and hence are suitable for beginners since you can observe the



Picture 5 :  
Broad lighting.



Picture 6 :  
Short lighting.



effect of highlights and shadows with your eye before you take a photograph. Even common household LED lamps can be used. These, however, have a weak light output, and hence the use of a tripod is recommended.

Strobes have several advantages over continuous lights and are preferred by most professionals. Studio strobes have modeling lamps that are continuous and will allow you to observe the effect of light before firing the strobe, thus giving you the best of both worlds but are expensive.

You have seen the equipment needed for portrait photography and you must have observed that, thankfully it is not something expensive! Before we go further there is one more point in portrait photography that is almost as important as the subject itself and that is the background. So, why is background important, and what should you do about the background for a good portrait? Let's look at this aspect.

**Background:** Unless you are interested in doing an environmental portrait, the background should be plain and not draw any attention to it. Even in an environmental portrait, it should be a tad less sharp than the subject. You can also reduce the sharpness of the background by keeping it far from the subject and by using shallow DOF as already explained.

Bright colors and light patches are visibly prominent and if these are present in the background, they will distract the viewer's attention. Hence, make sure that none of these are present.

In a portrait, the subject should have proper separation from the background. If there is no tonal or color difference between these two (for example black hair or black clothes and a black background) the subject will tend to merge with the background. Hence, unless you are using lights to create separation, choose a background based on the person's complexion, color, and tone of the clothes, etc. so that a proper separation exists.

Backgrounds with pastel colors convey a sense of delicacy (ideal for babies) while a dark background gives a more somber look. Pure white backgrounds are used in high key fashion photographs extensively.

While you can buy backgrounds of suitable colors and designs that are meant for portrait photography, you can also improvise. A plain uncluttered wall is an excellent background and, in a pinch, even a suitably colored plain bed sheet will do the job.

### Portrait Lighting Schemes

Contrary to other genres of photography, there are certain defined ways of lighting in formal portraiture. We will look at the

most used scheme (there are others too) called the Rembrandt Lighting.

As you can make out from the name itself, it owes its origins to the lighting used by the great Dutch master, Rembrandt. The most distinctive feature of this lighting is that it causes a triangular highlight on the cheek that is away from the light. Rembrandt lighting has two variations, called Broad Lighting and Short Lighting.

- **Broad Lighting:** Here the main light is set up so that it lights up the side of the face turned towards the camera (Picture 5). This type of lighting is used mostly with people who have narrow oval faces.
- **Short lighting:** Also called narrow lighting, this is the opposite of broad lighting. The main light in this case illuminates the side of the face that is turned away from the camera (Picture 6). Short lighting is more popular than broad lighting and can be used with people with broader faces.

**Portrait Lights and their roles:** In portrait lighting, there must be only one dominant light source. After all, we have only one sun! All other lights are used only in a supporting role to help the main light. Let us also standardize the nomenclature that is used to describe the various lights based on the role they perform. We will limit ourselves to just



three lights simply because portraiture with this number is doable for most of us, and more importantly, three lights are more than enough to make great portraits. So, here are the three important lights you need to know.

**Main light:** As the name indicates, this is the most important of all lights. It is also the brightest and all the other lights must be subordinate to it. Shadows and highlights form an important part of portraiture. Without these, a picture will lack modeling (form) or depth. In other words, it will be two-dimensional (flat). The job of the main light which is also the dominant light is to provide shadows and highlights. This is also known by some artists as 'chiaroscuro'. While a diffused light is a good choice as the main light (at least to start with) some photographers use a harder light to provide stronger modeling.

**Fill Light:** While we want the shadows, we want them to be unobtrusive and soft since these are more pleasing to the eye. The purpose of the fill light is to control the shadows created by the main light by lighting up the entire subject uniformly. The fill light is more diffused and is often half as bright as the main light.

**Back / Rim Light:** This light (a.k.a. the rim or shoulder light) shines on the subject from behind, often (but not necessarily) to one side or the other. It lights the back of the subject thus serving to separate the latter from the background and highlighting contours. This is mostly used to light the shoulders of the subjects wearing dark clothes to prevent them from merging with the dark backgrounds. Alternatively, it can also be used to create a 'rim light' effect where only the edges, rather than the entire back is lit. In this case, a thin line of highlight appears around the subject.

The operation of the three lights as described is often called "**Three Point Lighting**".

**The lighting ratio:** One of the important aspects of portrait lighting is the difference in brightness between the main light and the fill light. This brightness ratio, called the lighting ratio, will vary based on the tastes. An often used ratio is 3:1. This is achieved by

Portrait Type	The camera (lens axis) should be level with -
Head and shoulder	Upper lip or nose tip. Raising the camera further will emphasize the upper part of the face like the forehead, and nose. Lowering will do the opposite. It will also make the neck look longer.
Three quarter figure or up to the waist	Chest of the subject
Full length	Waist of the subject. This lower position, rather than the camera at eye level of the subject, will make the subject more elegant. Lowering the camera further will make the person taller. Positioning the camera higher will make the person stunted and is a common mistake when photographing children.

keeping the main light twice as intense as the fill light. As an example, say you have measured the main light alone and your exposure meter is reading  $f/8$ . Now, while keeping the ISO and the shutter speed the same, your fill light alone should give a reading of  $f/5.6$ . This means that the fill light is half as intense as the main light. Such a power ratio of 2:1 in lights will give rise to a lighting ratio of 3:1. This is a good starting point as it provides enough modeling without being overly contrasty. It is also called "Kodak Lighting" as it was recommended by Kodak in their literature. Using a weaker fill light will deepen the shadows and making it more powerful will have the opposite effect.

**Too many lights!** You might complain that there are too many lights to be used and how do you expect us hobbyists to have that many? Don't worry. As already described, you can take excellent portraits with one light or even with the window light. If you have just one light and if you use a large diffuser, you will need not much of a fill and this can be provided by a simple reflector instead of the fill light. Perhaps you will not get absolute control on the lighting ratio but you can still make very good portraits. Backlight can likewise be avoided if you pay close attention to the background. Depending on the color of the subject's hair and clothes, you can provide a background that has some contrast compared to the subject. This will give the needed separation without any additional lights. Sure, you will get greater control over highlights and shadows when you use more lights, but even with one light or by using the window light, you can take excellent portraits. So, don't let this aspect stop you from trying portrait photography!

**Omni directional lighting:** Trying to make a child sit still while you precisely

adjust lights is not practical. At the same time, children's portraits are not about the sophistication of the lighting but about capturing the expression and mood. Children look wooden when posed and photographed. However, there is a way out. A simple way to light when photographing children is to simply aim a reasonably powered strobe at the corner of the room where the wall meets the ceiling. This will light the whole room uniformly. You can use the camera's built-in flash or a small shoe mounted flash set to minimal power ( $1/16$  to  $1/64$ ). This serves two purposes. First, it will trigger the strobe and will also give a small fill in the eyes of the subject. The latter is important since most of the light is coming from the top (ceiling) and may cause dark sockets near the eyes. You can set the exposure using the histogram and once you set it, you need not change it unless you change the power of the strobe. The same exposure will hold good anywhere in the room so you can photograph freely concentrating on the subject. Make sure you set the white balance properly too since any color on the walls or ceiling will cause color casts.

### Positioning of the camera

At what height (that is level) should you keep the camera when you are taking a portrait? A widely recommended suggestion is to maintain the camera at the same level as the subject's eyes. This works reasonably well but levels indicated in Table 2 will give you better results. |SP

### NEXT MONTH

This article has given you the fundamentals of portraiture and the nomenclature used. The next part of the article will help you to put all this theory into practice by giving you a step by step guide to create a good portrait. Also included are a lot of tips and other useful information. Stay tuned!!





# THE EISA PHOTOGRAPHY MAESTRO CONTEST 2024

## This year's theme: **Sports and Games**

### Scope and Contest Rules:

Entrants should provide 5-8 photographs on the theme of 'Sports and Games'. Your subject matter may include professional and amateur sports as well as games. All entries must be in digital format (camera or scanned film originals) and must be taken by you between May 1st 2023 and April 30th 2024 (EXIF data will be checked as proof). Older portfolios and AI-generated images are excluded.

- 1<sup>ST</sup> PRIZE**  
€1500 & EISA Maestro Trophy
- 2<sup>ND</sup> PRIZE**  
€1000 & EISA Maestro Trophy
- 3<sup>RD</sup> PRIZE**  
€750 & EISA Maestro Trophy



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### NATIONAL DEADLINE: MAY 1<sup>ST</sup> 2024

All entries must be received by this date. The 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> prizes will be chosen by the editorial staff of Smart Photography and the National results will be published in the June issue.

### INTERNATIONAL JUDGING: JUNE 2024

National Maestro winners will also be published on Facebook at the end of June for the EISA Public's Choice competition. Prize for the winner: €1000.



The winning entries from each of the 16 participating EISA countries will then be judged together at the Association's General Meeting in June 2024. The final results of the International Maestro contest will be celebrated at the EISA Awards Gala in Sept 2024 and revealed, online, alongside the EISA product Awards on Aug 15<sup>th</sup> 2024

The winning photographs will be published in the Sept/Oct issues of all 16 EISA photo magazines/websites. Circumstances permitting, winners will be invited to the EISA Awards ceremony in Sept 2024



For further details, terms and conditions visit [www.eisa.eu/maestro](http://www.eisa.eu/maestro) and [www.smartphotography.in/maestro2024](http://www.smartphotography.in/maestro2024)



# WHITE BALANCE

by Rohinton Mehta

There are several photographers who are mystified by the term White Balance. So, what exactly is White Balance? How does it help us? Is it necessary to set the 'correct' WB? What happens if we set a wrong WB for the scene we are photographing? Let's try and answer these questions.

Let us say that you are photographing a person who is wearing white clothes and you are photographing the subject under yellow coloured light. Will his white clothes remain white? No. His white clothes will appear yellowish (unless you have adjusted the WB). We say that the subject has a 'yellow colour cast'.

Similarly, as an experiment, you light up one side of a subject's face with blue light and the other side of the face, with red coloured light. The face will exhibit one side as blue and the other as red. These experiments tell us that whatever is the colour of the source of light, will be the colour in the photo. If you photograph the Taj Mahal in the late evening hours, the white Taj Mahal

will appear yellowish. So the question is, do you want to show what your eyes saw when you took the photo (yellowish Taj), or do you want to show the actual (white) colour of the Taj? If you prefer the later (original colour), then you would have to remove the yellow from the Taj. This is exactly what White Balance does.

So we can sum it up this way: **White Balance is the correction applied to make a scene appear to have been shot in neutral coloured light even though the original scene was shot in coloured light.**

Digital cameras offer a choice of various WB settings: Auto, Daylight, Cloudy, Shade, Incandescent, Fluorescent, Flash, and Choose Colour Temperature (the naming can vary with different camera manufacturers).

So far so good.

There is yet another term that we need to know. It is known as **Colour Temperature**. Colour temperature refers to the colour of light and is

mentioned in kelvin (K). To keep the writeup free of technical jargon (as far as possible), we shall not go into the physics of the topic. Even then, we need to know that when a hypothetical black body is heated, it emits different colours depending on how much heat is applied to it. When it is heated to approximately 1850K (approximately 1577 degrees Celsius (Kelvins, minus 273.15 equals degrees Celsius), the colour of the light emitted by it is equivalent to the colour of a candle flame (you see, it is just a comparison).

**Here is a short list of kelvin temperatures for few different light sources:**

- Candle light — 1850K
- Sunrise/sunset — 2000K
- Incandescent light — 2700 to 3300K (depends on the wattage of the bulb)
- Moonlight — 4100K
- Daylight — 5500K (Neutral coloured light; generally, between 11 am to 3.30 pm, depending on your geographical location and weather conditions)
- Cool white LED bulbs — 6500K
- Cloudy day — 7000K (blueish)



Auto



- Clear blue sky — 10,000K  
(Please note that the figures above are not written in stone. They can vary depending on your geographical location)

Note that this is something counterintuitive because we always think that blue has less temperature and red more. However, scientifically it is incorrect. Just look at a gas stove that is at its maximum setting and it gives out a blue flame but a candle that is at a much lower temperature has a reddish flame!

Now there is one more 'tricky' thing you need to know. The WB setting in camera that you set is an instruction to the camera, telling it the temperature of the light source. So, if you set the camera to Incandescent, then you are telling that the light source is at around 3000K which is reddish. What the camera does now, while processing the image is that, it will add blue so neutralize the red. So, far so good.

- **Is it necessary to set the 'correct' WB?**  
Yes and No — for a technically correct rendition, yes; for an artistic representation, no.
- **What happens if we set a**

**wrong WB for the scene we are photographing?**

As an example, let us take that the actual light source is Daylight and is at 5500K. Let us say you have set the camera to Incandescent. Recall that this is an instruction to the camera asking to add blue to neutralize the red. However, there is no red in the light source now which is at 5500K. Hence there is no red to be neutralized and the picture will exhibit excessive blue cast.

So, this gives rise to an interesting paradox. If your camera WB setting is at a lower temperature than the actual source, you will see excessive blue as explained. Likewise, if your camera WB setting is at a higher temperature than the actual source, your picture will exhibit excessive red cast!

No doubt this is a bit confusing, but that is how it is!!

We sometimes do this for creative effects, especially to create a very warm effect.

- **Can we not always set our cameras to Auto WB?**  
Many photographers do just that.

Modern cameras are so well tuned that in most conditions, they provide neutral or near-neutral colours. But for greater accuracy, we should shoot in Raw. When you shoot in Raw, you have the option to change the WB in your Raw Converter (Adobe Camera Raw, for example) to what you like.

Remember, White Balance is a matter of your personal taste; it is not always necessary that all photos be neutral in colour. I may prefer warmer colours in a landscape while you might prefer a cooler colour. People in Eastern countries prefer a slightly yellowish skin tone, in Western countries, they prefer a slightly pinkish skin tone; in India we prefer neutral skin tone. I must add here that if you are photographing commercial products or interiors, your client will expect neutral colours.

Now that you are well informed, please try and put the knowledge in practise and enjoy your creations.

Note: All photos are by Ashok Kandimalla and were shot using LED lights (6500K). |SP

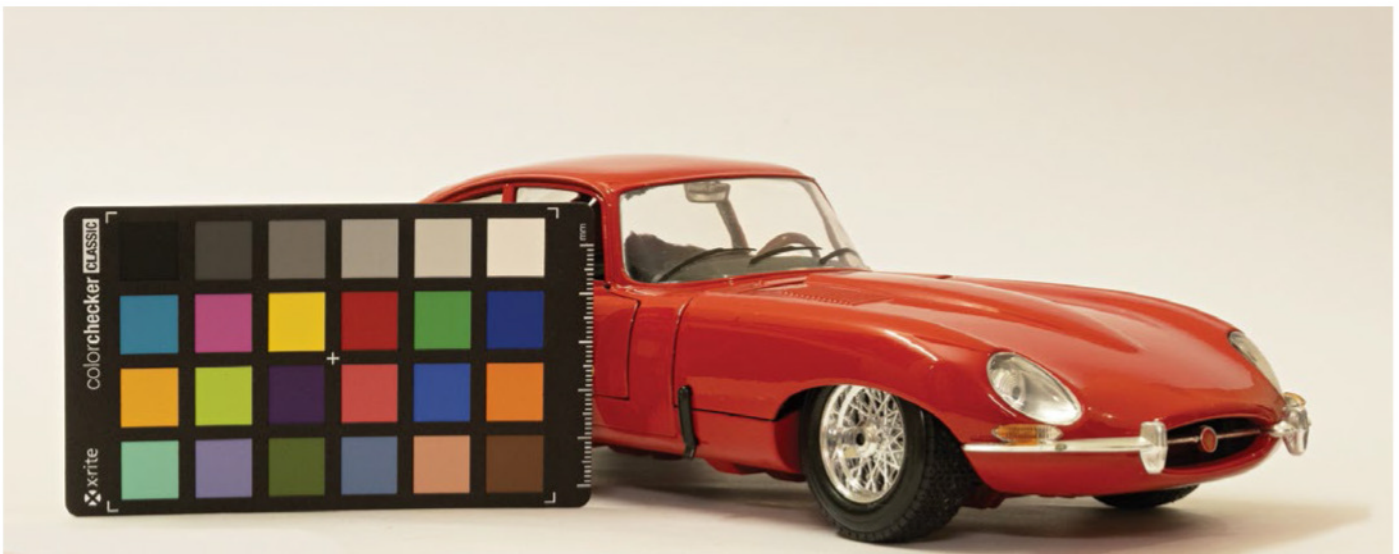


Sunlight

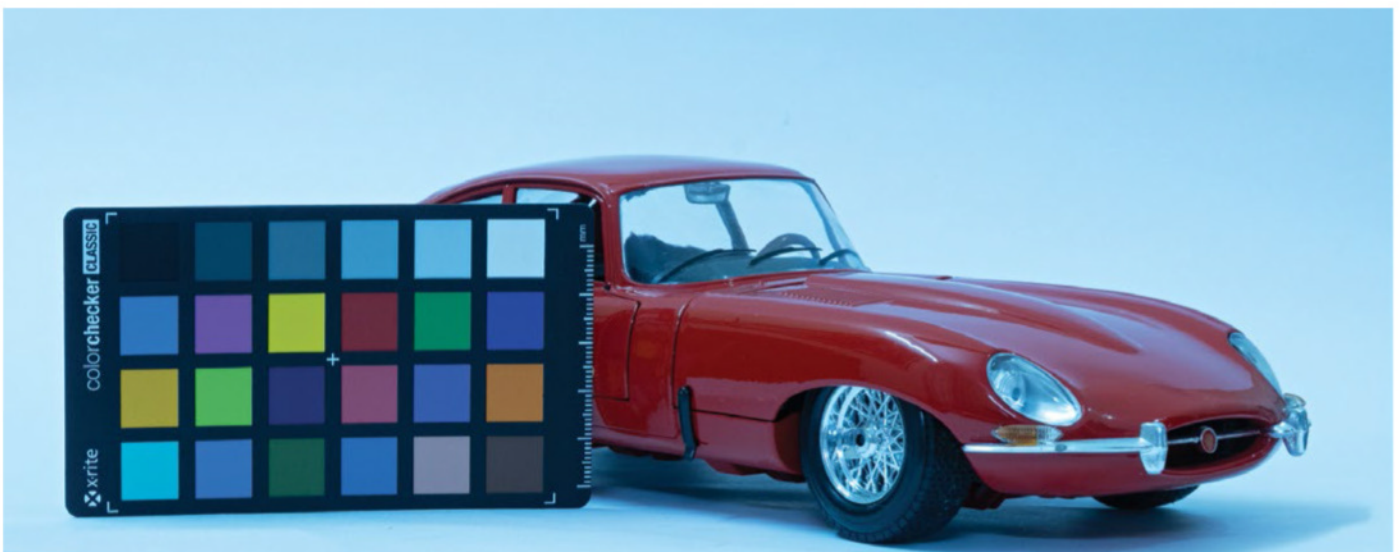




Cloudy

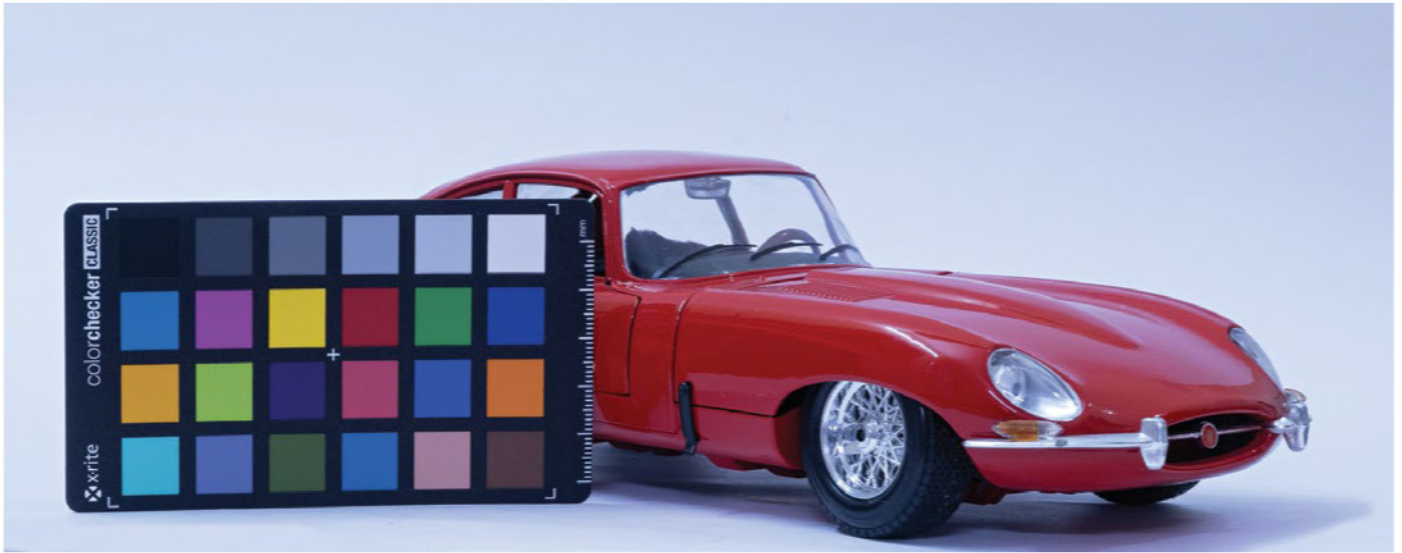


Shade



Incandescent





Florescent



Flash



6500K



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# REVIEWS

## FINAL RATING

The final ratings given in the reviews are not an indication of the performance or features of the reviewed device in isolation. It is a combination of all parameters including the price of the product.



82

### Lens Review

Sony FE 70–200mm  
F4 Macro G OSS II

84

### Mirrorless Review

Sony Alpha 6700



86

### Smartphone Review

Vivo X100 pro





Sony FE 70-200mm F4 Macro G OSS II ₹1,79,990

# Super telezoom

## Inside the Box

- ✓ Lens
- ✓ Lens hood (ALC-SH176), petal shape
- ✓ Lens front cap (ALC-F72S)
- ✓ Lens rear cap (ALC-R1EM)
- ✓ Warranty card

▣ **Hoshang Billimoria**

The 70 – 200 mm focal range has been a favourite for photographers seeking quality telephoto zooms. For professionals, a fixed aperture of 2.8 across the zoom range is attractive; however, for enthusiasts and amateurs, the bulk of such lenses and their high prices act as a deterrent. The 70 -200 mm F4 comes in useful here. Sony has had a 70 – 200 mm f 4 for several years; it was now time to upgrade it and therefore the new 70 – 200 mm f 4 Macro G OSS II. The new lens promises better image quality, better autofocus, closer focusing, improved image stabilisation and macro capabilities all in a smaller and lighter design.

## Design & Build Quality

Sony's new lens comes in an off-white colour and is positioned as a premium lens. Build quality is top notch. The lens is weather sealed. At 794 gms without the tripod collar, the lens is neither heavy or light. In fact, it balances very well with Sony's A 7 III and IV. A petal shaped hood is standard. The lens accepts 72 mm filters and is made by Sony in China.

## Key Features

19 elements in 13 groups are used to make the lens. This includes three ED glass elements, one Super ED glass element, one aspherical lens element and one advanced aspherical lens element. A fluorine coating on the front element helps to reduce flare and ghosting. Sony's



well made and easy to use. The tripod collar supplied with the lens can be rotated and is removable.

## Performance

Autofocus on the 70-200 mm f 4 is excellent. It is fast, quiet and precise. Autofocus tracking also works very well. Although Direct Manual Focus ( DMF ) is available, we saw no occasion to use it. Images produced were sharp and crisp with excellent colour rendition. No vignetting or distortion was visible, perhaps because of in-camera correction. Thanks to the petal shaped lens hood, no flare was visible.

The lens offers an impressive 0.5 X maximum magnification over the entire zoom range. Sony's 2 X teleconverter (SEL20TC ) increases the focal range to 140-400 mm.

Image stabilisation works very well to give rock steady pictures. What more could you ask for?

## Value for Money

The Sony 70 – 200 mm f4 Macro G OSS II carries an MRP of Rs 179990. Discounts are available. At this price, the lens may seem a tad expensive. |SP

## VERDICT

Version 2 of Sony's 70 – 200 mm f 4 lens comes with superb autofocus, improved image stabilisation, lighter weight, solid build quality and macro ability. Performance is also top class. **BEST BUY**



**Camera:** Sony ILCE-7M3  
**Lens:** Sony FE 70–200mm F4 Macro G OSS II  
**Aperture:** f/4.0  
**Shutter Speed:** 1/8000 sec  
**Focal Length:** 135.0 mm  
**ISO:** 800



### FINAL SCORE



#### Design and Build Quality



#### Key Features



#### Ergonomics



#### Performance



#### Value for Money



#### Overall



### PLUS

- Smaller and lighter
- Solid build quality
- Super optical quality
- Macro

### MINUS

- Very little

### KEY SPECIFICATIONS

**Mount:** Sony E-mount  
**Aperture range:** F/4 - 22  
**Aperture blades:** 9, circular  
**MFD:** 0.26 - 0.42m  
**Max magnification ratio:** 0.5x  
**Filter diameter:** 72 mm  
**Image stabilisation:** Optical SteadyShot  
**Dia x Length:** 82.2 x 149 mm  
**Weight:** 794 g





### Inside the Box

- ✓ Body
- ✓ Shoulder strap
- ✓ Body cap
- ✓ Accessory shoe cap
- ✓ Eyepiece cap
- ✓ Battery
- ✓ Lens
- ✓ Lens cap, lens rear cap and hood

by Sony's Bionz XR processor and a dedicated AI processing engine. The new processor gives the option to record losslessly compressed RAW files and the ability to capture 10-bit video. Again, the sensor can handle ISO speeds between 100 and 32000, extendable both ways to ISO 50 and ISO 102400.

The a 6700 comes with Sony's fast hybrid autofocus system which combines the advantages of phase detection autofocus and contrast detection autofocus. 759 AF points with 93% coverage constitute an improvement over the 6600. Also, the 6700 provides AF tracking with subject recognition with new subjects added. The AF system works in low light equating to -3 EV. 5.0 EV image stabilization is also incorporated.

The corner mounted viewfinder has a resolution of 2.36 m dots. Magnification of .70X. A 3 inch fully articulating touch screen with a resolution of 1.04 m dots of also new to the 6700.

1200 zone evaluative metering caters to exposure and exposure compensation upto +/- 5 EV is provided. Flash exposure compensation is limited to +/- 3 EV. Shutter speeds range from 1/4000 to 30 sec + bulb with the mechanical shutter. With the electronic shutter, this is increased to 1/8000 to 30 sec.

The a 6700 will also shoot upto 4K/60p with hardly any cropping and it can do this whilst capturing 10-bit precision and upto 4:2:2 colour. 4K /120 capability is also there but with significant cropping. Slow and quick motion shooting is also available.

Apart from JPEG and RAW, recording formats include HEIF ( High Efficiency Image File). A variety of methods are available for video compression.

The a6700 also lets you upload Look Up Tables ( LUTs) that can be used for

Sony Alpha 6700 ₹1,72,990

# NEW APS-C STAR!

▣ Hoshang Billimoria

Sony's 6000 range of cameras have proved to be quite popular in the market for APS-C cameras. The 6600 which was launched in 2019 has now been replaced with the 6700. What are the major differences?

The 6700 comes with a brand new sensor that is similar to the sensor found in the FX 30. Sony also claim improved autofocus with 759 phase detection points. The AI processing unit excels in subject detection and can recognize birds and vehicles. Low light performance is available upto -3EV. Buffer memory capacity is also up to 1000 JPEG files in fine compression. Video 4K recording upto 60p comes with a nominal 1.04 x crop. Image stabilization in video is

improved thanks to Sony's Active Steady Shot. A faster electronic shutter speed of 1/8000 and a variangle screen are other improvements. Does the Sony a 6700 with its numerous advancements constitute an attractive buy? Read on.

### Design & Build Quality

The Sony a 6700 sports the same compact camera styling as the 6600. Dimensions at 122x69x75.1 mm are also very close to those of the a 6700. The 6700 uses a magnesium alloy frame and is both dust and moisture resistant. At 493 gms, the a 6700 is 10 gms lighter than its predecessor. Overall build quality is good. The camera is made in Thailand.

### Key Features

The a 6700 sports a 26 MP BSI CMOS APS-C sensor. The sensor is supported





**Camera:** Nikon Z 8  
**Lens:** Nikkor Z 70-180 mm F/2.8  
**Aperture:** f/7.1  
**Shutter Speed:** 1/320 sec  
**Focal Length:** 180.0 mm  
**ISO:** 1000

pre-viewing and post production. The a6700 body also has mic and headphone ports, a USB Type C port and a micro HDMI socket.

The NP-FZ 100 battery is good for upto 570 shots. The camera has a single SD card slot. Bluetooth and Wi-fi are built in for smartphone connectivity. Pretty comprehensive specifications for an APS – C camera!

### Ergonomics

The a6700 certainly boasts better handling than the a6600. Menus are better organized and easier to follow. The grip is large and deep and hand holding the camera is not an issue. The inclusion of a front dial is a positive step.

The fully articulating screen is also a plus point. The battery life at upto 570 shots is also reassuring. The 6700 pairs well with the 18 -135 mm f 3.5/ 5.6 OSS lens. Some may feel the absence of a AF joystick; the touchscreen however fulfills the same function.

### Performance

Both still and video images are rendered in a manner that is pleasing to the eye. Color is well saturated and dynamic range is good. The inclusion of a touchscreen aids both handling and performance. Autofocus works very well and is excellent at subject tracking. Image stabilisation both in the body and the lens results in sharp pictures. The camera can heat up a bit in video mode especially


when using higher resolution and frame rates. However, the 6700 is aimed at enthusiasts who are unlikely to subject it to long video usage. Overall, the Sony a 6700 is a fine camera and is probably Sony's best APS – C camera to date.

### Value for Money

Along with the 18 – 135 mm lens, the a 6700 carries an MRP of Rs 172990. Discounts should be available. At this price, the camera is fair to good value for money. **|SP**

### VERDICT

**The a 6700 is a significant improvement over its predecessor, the a 6600. It is Sony's best APS – C camera. Strongly recommended.**



FINAL SCORE

**Design and Build Quality**  
 ★ ★ ★ ★ ☆

**Key Features**  
 ★ ★ ★ ★ ★

**Ergonomics**  
 ★ ★ ★ ★ ☆

**Performance**  
 ★ ★ ★ ★ ☆

**Value for Money**  
 ★ ★ ★ ★ ☆

**Overall**  
 ★ ★ ★ ★ ☆

PLUS	MINUS
<ul style="list-style-type: none"> <li>Compact and lightweight</li> <li>Excellent autofocus</li> <li>Very good image quality</li> <li>Fully articulating</li> </ul>	<ul style="list-style-type: none"> <li>Single card slot</li> <li>No AF joystick</li> </ul>

KEY SPECIFICATIONS

<b>Sensor Type:</b> CMOS	<b>Minimum Shutter Speed:</b> 30 seconds
<b>Size:</b> APS-C	<b>Self Timer:</b> Yes
<b>Resolution:</b> 26 megapixels	<b>Connectivity:</b> Wi-Fi
<b>Maximum Resolution:</b> 1.03M pixels	<b>Shooting Modes:</b> Movie
<b>Focus Type:</b> Auto Focus, Manual Focus	<b>Additional Features:</b> Face Detection
<b>Autofocus Points:</b> 179	<b>Video Resolution:</b> 2160p
<b>Max Shutter Speed:</b> 1/8000 seconds	<b>Video Format:</b> AVCHD
	<b>Display Size:</b> 3 inches
	<b>Display Type:</b> LCD



Vivo X100 pro ₹89,999 vivo.com

# True **flagship** camera phone

## Inside the Box

- ✓ X100 Pro
- ✓ Quick Start Guide
- ✓ USB Cable
- ✓ Charger
- ✓ Eject Tool
- ✓ Phone Case
- ✓ Protective Film (applied)
- ✓ Warranty Card



The Vivo X100 Pro comes in three colour and the camera is co-engineered with Zeiss technology. The camera system on this device really sets this device apart from competition. It combines efficiently with onboard 16gb of RAM and 5400mAh battery, to provide a robust device for your all day requirements. This device raises the bar for professional photographer like imaging on a phone, as there are different cameras for different needs, and this has been further simplified by the various scene modes.

The battery was the super cool highlight with Bigger dual cell 2500 mAh (7.82V) Battery and Superfast charging, 0 to 100% in about 25 minutes. The charging was unexpectedly fast for a phone with this size battery.

The weight is 221grams that is justifiable considering the camera system and display size. But it doesn't feel that heavy. With Super Durable IP68 Rating and 8T LTPO Eye protection display in Funtouch OS the eyes are not strained if you play games or watch movies. Pixel Density is 453 PPI, so the viewing is detailed.

This phone has 5G MediaTek Dimensity 9300 (4nm) processor helping in low energy consumption and high performance. Display Size is 17.22cm (6.78 inches) with a capacitive multi-touch with refresh rate upto 120 Hz.

There are 2 Nano SIMs card slots and supports 5G to 2G GSM Network.

The Vivo X100 Pro camera has a 1-inch Sony INX 989 sensor for the main camera and this does a great job of lowering noise levels across various lighting conditions. This has been one of the biggest improvements. The autofocus and zoom on the camera has also improved vs its predecessor. The telephoto lens provides great pictures across various tele zoom settings, and it offers native zoom of 4x (100mm equivalent) and this is across lighting conditions. The ultra wide camera images contained lot of detail and also performed well across lighting conditions. Overall camera system a significant improvement over its predecessor on all the three 50MP rear cameras. In the portrait mode, the contrast and colour tone impressed us.

The video mode on this phone also does not disappoint, it includes good amount of image stabilization and captures details quite well. But the video mode is not as good on performance as the still pictures on this phone.

The X100 and X100 Pro differs purely on the camera system front, almost everything else is similar, so for most user the X100 would suffice and it's only photographers who would be willing to pay significant premium for the superior camera system on the Pro. |SP

## VERDICT

It still does not match iPhone 15 pro or Google Pixel 8 pro, but does a damn good job for the price.

## FINAL SCORE

### PLUS

- Low noise levels in photo and video mode
- Great portrait mode
- Zoom on the camera is a delight

### MINUS

- Exposure adaptation issues in video mode
- low light and backlit video not upto the mark
- Speed of auto focus could be improved

## Overall



## KEY SPECIFICATIONS

Front 32 MP / Rear 50 MP + 50 MP + 50 MP

**Front:** 32 MP, f/2.0, 20mm (ultrawide)

**Primary:** 50MP 1/0.98µ sensor; f/1.75-aperture lens, Dual Pixel PDAF, OIS

**Ultra-wide:** 50MP, 1/2.76µ sensor, 15mm equivalent f/2.0-aperture lens, AF

**Tele:** 50MP 1/2µ sensor; 100mm equivalent f/2.5-aperture lens, AF, OIS

**Aperture:** Front f/2.0 (32 MP), Rear f/1.75 (50 MP) + f/2.0 (50 MP) + f/2.5 (50 MP)

**Video:** 8K, 4K at 60/30fps, 1080p at 60/30fps

**Flash:** Rear LED flash

**Scene Mode:** Snapshot, Night, Portrait, Photo, Video, High Resolution, Pano, Ultra HD Document, Slo-mo, Long Exposure, Time-Lapse, Supermoon, Astro, Landsc. & Archit, Pro, Food, Live Photo, Cinematic Portrait







## Lexar Professional CFexpress Type B Diamond-series Memory Cards

# Fast & Reliable

▣ Rohinton Mehta

**L**exar is a name that immediately comes to mind when looking for memory cards. Besides memory cards, Lexar offers a range of products like USB flash drives, readers, solid-state drives (SSDs) and DRAM for retail and OEM customers.

Several camera models from different leading manufacturers like Canon, Nikon, Fujifilm, Panasonic and RED use CFexpress Type B memory cards to store the data (please check the specifications for your camera). CFexpress Type B memory cards from Lexar are available in Diamond series (up to 1900MB/s 'Read speed' / 1700MB/s 'Write speed'); Gold series (up to 1900MB/s 'Read speed' / 1500MB/s 'Write Speed'); and Silver series (up to 1750MB/s 'Read speed' / 1300MB/s 'Write speed').

It is important to have reliable memory cards, but it is equally important to have 'fast' cards --- those that offer superior 'Read & Write' speeds. This is more so in view of the high- resolution camera models available these days that churn out large amounts of data. Imagine taking a long burst of shots or a 4K/8K video of a tiger chasing its prey and your memory card is incapable of clearing up of the buffer due to the former's slower write speed. The consequence would be blocking up the camera causing it to possibly miss out on a once-in-a-lifetime opportunity!

Fast and reliable cards from Lexar ensures that you don't miss out on fast action, whether shooting 'stills' or video.

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# MIRRORLESS LENS GUIDE

## CANON

	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
EF-M 11-22mm f/4-5.6 IS STM	62,652	15	55	61	58.2	220
EF-M 15-45mm f/3.5-6.3 IS STM	45,512	25	49	60.9	44.5	130
EF-M 18-55mm f/3.5-5.6 IS STM	TBC	25	52	61	61	210
EF-M 18-150mm f/3.5-6.3 IS STM	36,995	25	55	60.9	86.5	300
EF-M 22mm f/2 STM	18,995	15	43	61	23.7	105
EF-M 28mm f/3.5 IS STM Macro	24,990	9.7	43	60.9	45.5	130
EF-M 32mm f/1.4 STM	69,564	23	43	60.9	56.5	235
EF-M 55-200mm f/4.5-6.3 IS STM	25,495	100	52	60.9	86.5	260
RF 14-35mm f/4L IS USM	1,55,995	20	77	84.1	99.8	540
RF 15-35mm f/2.8L IS USM	2,20,995	28	82	88.5	126.8	840
RF 16mm f/2.8 STM	26,995	13	43	69.2	40.1	165
RF 24-70mm f/2.8L IS USM	2,20,995	38	82	88.5	127.7	900
RF 24-105mm f/4L IS STM	1,18,995	45	77	83.5	107.3	700
RF 24-105mm f/4-7.1 IS STM	36,995	34	67	76.6	88.8	395
RF 24-240mm f/4-6.3 IS USM	81,995	50	72	80.4	122.5	750
RF 28-70mm f/2L USM	2,86,995	39	95	103.8	139.8	1430
RF 35mm f/1.8 IS STM Macro	44,995	17	52	74.4	62.8	305
RF 50mm f/1.8 STM	17,995	30	43	69.2	40.5	160
RF 50mm f/1.2L USM	2,23,995	80	77	89.8	108	950
RF 70-200mm f/2.8L IS USM	2,57,995	70	77	89.9	146	1070
RF 70-200mm f/4L IS USM	1,66,995	60	77	83.5	119	695
RF 85mm f/1.2L USM	2,57,995	85	82	103.2	117.3	1195
RF 85mm f/1.2L USM DS	2,94,995	85	82	103.2	117.3	1195
RF 85mm f/2 Macro IS STM	52,995	35	67	78	91	500
RF 100mm f/2.8 L Macro IS USM	1,34,995	26	67	81.5	148	730
RF 100-400mm f/5.6-8 IS USM	58,995	88	67	79.5	164.7	635
RF 100-500mm f/4.5-7.1L IS USM	2,72,995	90	77	94	208	1530
RF 600mm f/11 IS STM	74,995	450	82	93	200	930
RF 800mm f/11 IS STM	94,995	600	95	102	282	1260

## FUJIFILM

	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
XF 8-16mm f/2.8 R LM WR	1,59,999	25	N/A	88	121.5	805
XF 10-24mm f/4 R OIS WR	94,999	24	72	77.6	87	385
XF 14mm f/2.8 R	85,148	18	58	65	58.4	235
XC 15-45mm f/3.5-5.6 OIS PZ	TBC	13	52	62.6	44.2	135
XF 16mm f/1.4 R WR	78,999	15	67	73.4	73	375
XF 16mm f/2.8 R WR	38,990	17	49	60	45.4	155
XC 16-50 f/3.5-5.6 OIS II	TBC	30	58	62.6	98.3	195
XF 16-55mm f/2.8 R LM WR	94,999	60	77	83.3	106	655



XF 16-80mm f/4 R WR OIS	TBC	35	72	78.3	88.9	440
XF 18mm f/1.4 R LM WR	91,999	20	62	68.8	75.6	370
XF 18mm f/2 R	TBC	18	52	64.5	40.6	116
XF 18-135mm f/3.5-5.6 R LM OIS WR	90,999	45	77	75.7	97.8	490
XF 18-55mm f/2.8-4 R LM OIS	TBC	18	58	65	70.4	310
XF 23mm f/1.4 R	66,080	28	62	72	63	300
XF 23mm f/1.4 R LM WR	TBC	19	58	67	77.8	375
XF 23mm f/2 R WR	45,900	22	43	60	51.9	180
XF 27mm f/2.8	38,000	34	39	61.2	23	78
XF 27mm f/2.8 R WR	TBC	34	39	62	23	84
XF 33mm f/1.4 R LM WR	79,999	30	58	67	73.5	360
XF 35mm f/1.4 R	58,470	28	52	65	54.9	187
XF 35mm f/2 R WR	43,000	35	43	60	45.9	170
XC 35mm f/2	20,900	35	43	58.4	46.5	130
XF 50mm f/1 R WR	1,49,999	70	77	87	103.5	845
XF 50mm f/2 R WR	44,999	39	46	60	59.4	200
XF 50-140mm f/2.8 R LM OIS WR	1,48,000	100	72	82.9	175.9	995
XC 50-230mm f/4.5-6.7 OIS II	34,990	110	58	69.5	111	375
XF 55-200mm f/3.5-4.8 R LM OIS	67,990	110	62	75	118	580
XF 56mm f/1.2 R	96,490	70	62	73.2	69.7	405
XF 56mm f/1.2 R APD	TBC	70	62	73.2	69.7	405
XF 60mm f/2.4 XF R Macro	50,998	26.7	39	64.1	70.9	215
XF 70-300mm f/4-5.6 R LM OIS WR	TBC	83	67	75	132.5	580
XF 80mm f/2.8 R LM OIS WR Macro	94,999	25	62	80	130	750
XF 90mm f/2 R LM WR	74,000	60	62	75	105	540
XF 100-400mm f/4.5-5.6 R LM OIS WR	1,89,990	175	77	94.8	210.5	1375

<b>LAOWA</b>						
	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
4mm f/2.8 Fisheye	15,521	8	N/A	45.2	25.5	135
7.5mm f/2 MFT	38,919	12	46	50	55	170
9mm f/2.8 Zero-D	38,919	12	49	60	53	215
10mm f/2 Zero-D MFT	TBC	12	46	54	41	125
17mm f/1.8 MFT	11,621	15	46	55	50	160
25mm f/0.95 APO MFT Argus	31,119	25	62	71	86	570
33mm f/0.95 CF APO Argus	38,919	35	62	71.5	83	590
50mm f/2.8 2x Ultra Macro APO MFT	31,119	13.6	49	53.5	79	240
65mm f/2.8 2x Ultra Macro	31,119	17	52	57	100	335
9mm f/5.6 FF RL	62,317	12	N/A	62.4	66	350
10-18mm f/4.5-5.6	54,518	15	37	70	90.9	496
11mm f/4.5 FF RL	54,518	19	62	63.5	58	254
14mm f/4 FF RL	42,818	27	52	58	59	228
15mm f/2 Zero D	58,417	15	72	66	82	500



# MIRRORLESS LENS GUIDE

15mm f/4.5 Zero-D Shift	93,514	20	N/A	79	103	597
20mm f/4 Zero-D Shift	85,715	25	82	91	95	747
35mm f/0.95 FF Argus	70,116	50	72	76.8	103	755
45mm f/0.95 FF Argus	62,317	50	72	76.8	110	835
85mm f/5.6 2x Ultra Macro APO	35,019	16.3	46	53	81	291

## NIKON

	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
16-50mm f/3.5-6.3 VR Nikkor-Z DX	26,450	30	46	70	32	135
18-140mm f/3.5-5.6 VR Nikkor-Z DX	26,999	20	62	73	90	315
50-250mm f/4.5-6.3 VR Nikkor-Z DX	31,450	100	62	74	110	405
14-24mm f/2.8 S Nikkor-Z	1,99,995	28	112	88.5	124.5	650
14-30mm f/4 S Nikkor-Z	99,950	28	82	89	85	485
20mm f 1.8 G ED Nikkor Z	65450	20	77	84.5	108.5	505
20mm f/1.8 S Nikkor-Z	83,990	20	77	84.5	108.5	505
24-50mm f/4-6.3 Nikkor-Z	39,995	35	52	73.5	51	195
24-70mm f/2.8 S Nikkor-Z	1,90,000	38	82	89	126	805
24-70mm f/4 S Nikkor-Z	78,450	30	72	77.5	88.5	500
24-120mm f/4 S Nikkor-Z	97,995	35	77	84	118	630
24-200mm f/4-6.3 VR Nikkor-Z	68,995	70	67	76.5	114	570
24mm f/1.8 S Nikkor-Z	83,995	25	72	78	96.5	450
28mm f/2.8 Nikkor-Z	21,995	19	52	70	43	155
28-75mm f/2.8 Nikkor-Z	89,995	19	67	75	120.5	565
35mm f/1.8 S Nikkor-Z	52,748	25	62	73	86	370
40mm f/2 Nikkor-Z	21,500	29	52	70	45.5	170
50mm f/1.2 S Nikkor-Z	1,79,995	45	82	89.5	150	1090
50mm f/1.8 S Nikkor-Z	38,986	40	62	76	86.5	415
50mm f/2.8 MC Nikkor-Z	58,995	16	46	74.5	66	260
70-180mm f 2.8 Nikkor Z	119995	27	67	83.5	151	795
70-200mm f/2.8 VR S Nikkor-Z	2,04,995	100	77	89	220	1360
85mm f 1.2 S Nikkor Z	257995	85	82	102.5	141.5	1160
85mm f/1.8 S Nikkor-Z	52,766	80	67	75	99	470
100-400mm f/4.5-5.6 Nikkor-Z VR S	2,41,995	75	77	98	222	1355
105mm f/2.8 VR S MC Nikkor-Z	89,995	29	62	85	140	630
135mm f 1.8 S Plena Nikkor Z	242995	82	82	98	139.5	995
180-600mm f 5.6-6.3 VR Nikkor Z	169995	130	95	110	315.5	1955

## SAMYANG

	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
7.5mm f/3.5 UMC fisheye MFT	30,999	9	n/a	48.3	60	197
8mm f/2.8 UMC fisheye II	TBC	30	n/a	60	64.4	290



12mm f/2 NCS CS	26,990	20	67	72.5	59	245
35mm f/1.2 ED AS UMC CS	TBC	38	62	67.5	74.2	420
50mm f/1.2 AS UMC CS	TBC	50	62	67.5	74.5	380
85mm f/1.8 ED UMC CS	TBC	65	62	67.5	81	423
300mm f/6.3 ED UMC CS Reflex	23,320	90	58	73.7	64.5	320
12mm f/2 AF	29,990	19	62	70	59.2	213
14mm f/2.8 AF	48,806	20	n/a	85.5	97.5	505
18mm f/2.8 FE AF	31,034	25	58	63.5	60.5	145
24mm f/1.8 FE AF	37,490	19	58	65	71.5	230
24mm f/2.8 FE AF	26,490	24	49	61.8	37	93
24-70mm f/2.8 FE AF	77,915	35	82	88	128.5	1027
35mm f/1.4 FE AF	38,606	30	67	75.9	115	645
35mm f/1.4 FE AF II	TBC	29	67	75	115	659
35mm f/1.8 FE AF	31,544	29	58	65	63.5	210
35mm f/2.8 FE AF	25,400	35	49	61.8	33	86
45mm f/1.8 FE AF	31,034	45	49	61.8	56.1	162
50mm f/1.4 FE AF	39,900	45	67	73.5	97.7	585
50mm f/1.4 FE AF II	54,517	40	72	80.1	88.9	420
75mm f/1.8 FE AF	28,993	69	58	65	69	230
85mm f/1.4 AF	52,300	90	77	88	99.5	568
135mm f/1.8 FE AF	77,915	69	82	93.4	129.6	772

<b>SIGMA</b>						
	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
14mm f 1.4 DG DN A	138000	30		101.4	149.9	1170
16mm f/1.4 DC DN   C	36,990	25	67	72.2	92.3	405
16-28mm f 2.8 DG DN C	95000	25	72	77.2	100.6	450
18-50mm f/2.8 DC DN   C	46,210	12.1	55	61.6	76.5	290
20mm f 1.4 DG DN A	92500	23	82	87.8	111.2	635
24mm f 1.4 DG DN A	83000	25	72	75.7	95.5	520
30mm f/1.4 DC DN   C	28,990	30	52	64.8	73	140
56mm f/1.4 DC DN   C	39,499	50	55	66.5	59.5	280
14-24mm f/2.8 DG DN   A	1,23,443	28	n/a	85	131	795
20mm f/2 DG DN   C I-series	TBC	22	62	70	74.4	370
24-70mm f/2.8 DG DN   A	1,05,032	38	82	87.8	122.9	835
24mm f/2 DG DN   C I-series	TBC	24.5	62	70	74	360
24mm f/3.5 DG DN   C I-series	45,300	10.8	55	64	48.8	225
28-70mm f/2.8 DG DN   C	75,626	19	67	72.2	101.5	470
35mm f/1.2 DG DN   A	1,09,112	30	82	87.8	136.2	1090
35mm f/1.4 DG DN   A	80,034	30	67	75.7	109.5	645
35mm f/2 DG DN   C I-series	55,162	27	58	70	65	325
45mm f/2.8 DG DN   C	46,571	24	55	64	46.2	215
50mm f 1.4 DG DN A	92000	45	72	78.2	109.5	670
60-600mm f 4.5-6.3 DG DN OS S	205000	45	105	119.4	281.2	2485



# MIRRORLESS LENS GUIDE

65mm f/2 DG DN   C I-series	62,404	55	62	72	74.7	405
85mm f/1.4 DG DN   A	96,004	85	77	82.4	94.1	630
90mm f/2.8 DG DN   C I-series	TBC	50	55	64	61.7	295
100-400mm f/5-6.3 DG DN OS   C	1,39,293	112	67	86	199.2	1140
105mm f/2.8 DG DN Macro   A	78,990	29.5	62	74	133.6	715
150-600mm f/5-6.3 DG DN OS   S	1,18,990	58	95	109.4	263.6	2100

## SONY

	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
E 10-18mm f/4 OSS	76,490	25	62	70	63.5	225
E 16mm f/2.8	10,900	24	49	62	22.5	67
E 16-50mm f/3.5-5.6 PZ OSS	22,290	25	40.5	64.7	29.9	116
E 16-55mm f/2.8 G	1,08,990	33	67	73	100	494
E 16-70mm f/4 ZA OSS Vario-Tessar T*	55,490	35	55	66.6	75	308
E 18-55mm f/3.5-5.6 OSS	TBC	25	49	62	60	194
E 18-105mm f/4 G PZ OSS	47,490	45	72	78	110	427
E 18-110mm f/4 G PZ OSS	2,86,990	40	95	110	167.5	1105
E 18-135mm f/3.5-5.6 OSS	55,490	45	55	67.2	88	325
E 18-200mm f/3.5-6.3 OSS LE	77,490	50	62	68	98	460
E 18-200mm f/3.5-6.3 PZ OSS	1,05,990	30	67	93.2	99	649
E 20mm f/2.8	37,990	20	49	62.6	20.4	69
E 24mm f/1.8 ZA Sonnar T*	92,990	16	49	63	65.6	225
E 30mm f/3.5 Macro	25,490	9	49	62	55.5	138
E 35mm f/1.8 OSS	41,490	30	49	62.2	45	155
E 50mm f/1.8 OSS	22,690	39	49	62	62	202
E 55-210mm f/4.5-6.3 OSS	21,190	100	49	63.8	108	345
E 70-350mm f/4.5-6.3 G OSS	80,990	110	67	77	142	625
FE 12-24mm f/2.8 GM	2,99,990	28	n/a	97.6	137	847
FE 12-24mm f/4 G	1,51,990	28	n/a	87	117.4	565
FE 14mm f/1.4 GM	TBC	25	n/a	83	99.8	460
FE 16-35mm f/2.8 GM	1,92,990	28	82	88.5	121.6	680
FE 16-35mm f/4 ZA OSS Vario-Tessar T*	89,990	28	72	78	98.5	518
FE 16-35mm f/4 G PZ	1,24,990	23	72	80.5	88.1	353
FE 20mm f/1.8 G	89,490	18	67	84.7	73.5	373
FE 20-70mm f 4 G	124,990	30	72	78.7	99	488
FE 24mm f/1.4 GM	1,29,990	24	67	75.4	92.4	445
FE 24mm f/2.8 G	63,500	24	49	68	45	162
FE 24-70mm f/2.8 GM	1,59,990	38	82	87.6	136	886
FE 24-70mm f 2.8 GM II	199,990	30	82	87.8	119.9	695
FE 24-70mm f/4 ZA OSS Vario-Tessar T*	79,900	40	67	73	94.5	426
FE 24-105mm f/4 G OSS	94,990	38	77	83.4	113.3	663
FE 24-240mm f/3.5-6.3 OSS	79,990	50	72	80.5	118.5	780
FE 28mm f/2	34,500	29	49	64	60	200
FE 28-60mm f/4-5.6	44,990	30	40.5	67	45	167



FE 28-70mm f/3.5-5.6 OSS	34,990	30	55	72.5	83	295
FE 28-135mm PZ f/4 G OSS	2,17,990	95	95	162.5	105	1215
FE 35mm f/1.4 ZA Distagon T*	1,17,990	30	72	78.5	112	630
FE 35mm f/1.4 GM	1,64,990	27	67	76	96	524
FE 35mm f/1.8	55,490	22	55	65.6	73	280
FE 35mm f/2.8 ZA Sonnar T*	57,990	35	49	61.5	36.5	120
FE 40mm f/2.5 G	66,990	28	49	68	45	173
FE 50mm f/1.2 GM	2,28,990	40	72	87	108	778
FE 50mm f 1.4 GM	149990	38	67	80.6	96	516
FE 50mm f/1.4 ZA Planar T*	1,30,990	45	72	83.5	108	778
FE 50mm f/1.8	19,130	45	49	68.6	59.5	186
FE 50mm f/2.5 G	63,500	35	49	68	45	174
FE 50mm f/2.8 Macro	42,990	16	55	70.8	71	236
FE 55mm f/1.8 ZA Sonnar T*	68,990	50	49	64.4	70.5	281
FE 70-200mm f/4 G OSS	1,12,490	100	72	80	175	840
FE 70-200mm f 4 Macro G OSS II	170990	26	72	82.2	149	794
FE 70-200mm f/2.8 GM OSS	1,89,990	96	77	88	200	1480
FE 70-200mm f/2.8 GM OSS II	2,44,990	40	77	88	200	1045
FE 70-300mm f/4.5-5.6 G OSS	1,03,990	90	72	84	143.5	854
FE 85mm f/1.8	53,069	80	67	78	82	371
FE 85mm f/1.4 GM	1,29,990	80	77	89.5	107.5	820
FE 90mm f/2.8 Macro G OSS	65,990	28	62	79	130.5	602
FE 100mm f/2.8 STF GM OSS	1,40,990	57	72	85.2	118.1	700
FE 100-400mm f/4.5-5.6 GM OSS	2,27,500	98	77	93.9	205	1395
FE 135mm f/1.8 GM	1,85,990	70	82	89.5	127	950
FE 200-600mm f/5.6-6.3 G OSS	1,77,990	240	95	111.5	318	2115
FE 600mm f 4 G	1377990	4.5 metres	40.5	163.6	449	3040

## TAMRON

	MOUNT	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
14-150 F/3.5-5.8 Di III	MFT mount	55,500	50	52	63.5	80.4	285
11-20mm F/2.8 Di III-A RXD	Sony APS-C	67,500	15	67	73	86.2	335
17-50mm f 4 DiIII VXD	Sony E-mount	58,190	22	67	74.8	114.4	460
17-70mm F/2.8 Di III-A VC RXD	Sony APS-C	67,500	19	67	74.6	119.3	525
17-70mm F/2.8 Di III-A VC RXD	Fujifilm X	73,000	19	67	74.6	119.3	525
18-200mm F/3.5-6.3 Di III VC	Sony APS-C	55,200	50	62	68	96.7	460
18-300mm F/3.5-6.3 Di III-A VC VXD	Sony APS-C/ Fujifilm X	65,000	15	67	75.5	125.6	620
20mm F/2.8 Di III OSD M1:2	Sony FF	32,000	11	67	73	64	220
24mm F/2.8 Di III OSD M1:2	Sony FF	32,000	12	67	73	64	215
35mm F/2.8 Di III OSD M1:2	Sony FF	32,000	15	67	73	64	210
17-28mm F/2.8 Di III RXD	Sony FF	85,000	19	67	73	99	420
28-75mm F/2.8 Di III VXD G2	Sony FF	82,000	18	67	76	118	540
28-200mm F/2.8-5.6 Di III RXD	Sony FF	64,500	19	67	74	117	575
35-150mm F/2.0-2.8 Di III VXD	Sony FF	164,000	33	82	89	158	1165



# MIRRORLESS LENS GUIDE

50-400mm f 4.5-6.3 Di III VC VXD	TBA	181665	25	67	81	149	810
70-180mm F/2.8 Di III VXD	Sony FF	99,900	85	67	81	149	810
70-300mm F/4.5-6.3 Di III RXD	Sony FF	50,000	80	67	77	148	545
150-500mm F/5-6.7 Di III VC VXD	Sony FF	120,900	60	82	93	209.6	1725

## TOKINA

	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
atx-m 23mm f/1.4 X	42,750	30	52	65	72	276
atx-m 33mm f/1.4 X	35,905	40	52	65	72	285
Firin 20mm f/2 FE MF	55,417	28	62	69	81.5	490
Firin 20mm f/2 FE AF	39,999	28	62	73.4	81.5	464
atx-m 85mm f/1.8 FE	34,161	80	72	93.2	80	645
Firin 100mm f/2.8 FE Macro	47,990	30	55	74	123	570

## VOIGTLANDER

	PRICE (RS)	MIN FOC (CM)	FILTER THREAD (CM)	DIAMETER (MM)	LENGTH (CM)	WEIGHT (G)
10.5mm f/0.95 Nokton	1,49,207	17	72	77	82.4	585
17.5mm f/0.95 Nokton	58,417	15	58	63.4	80	540
25mm f/0.95 Nokton II	54,517	17	52	60.6	70	435
29mm f/0.8 Super Nokton	1,36,410	37	62	72.3	88.9	703
42.5mm f/0.95 Nokton	TBC	23	58	64.3	74.6	571
60mm f/0.95 Nokton	58,417	34	77	82.5	87.7	860
23mm f/1.2 Nokton Aspherical	TBC	18	46	59.3	43.8	214
35mm f/1.2 Nokton X	50,617	30	46	59.6	39.8	195
10mm f/5.6 Hyper Wide Heliar	74,015	50	n/a	67.8	58.7	312
15mm f/4.5 Super Wide Heliar III	54,517	30	58	66.4	62.3	294
21mm f/1.4 Nokton	77,915	25	62	70.5	79.5	560
21mm f/3.5 Color-Skopar Asph	82,751	20	52	62.8	39.9	230
35mm f/1.2 Nokton SE	68,556	30	58	66.5	59.9	387
35mm f/1.4 Nokton Asph	TBC	30	58	67	39.6	262
35mm f/2 Apo-Lanthar	89,614	35	49	62.5	67.3	352
40mm f/1.2 Nokton	66,216	35	58	70.1	59.3	420
40mm f/1.2 Nokton SE	62,316	35	58	66.5	51.9	340
50mm f/1.2 Nokton	70,116	45	58	70.1	58.8	434
50mm f/1.2 Nokton SE	62,316	45	58	66.5	58.5	383
50mm f/2 Apo-Lanthar	81,815	45	49	62.6	61.3	354
65mm f/2 Macro Apo-Lanthar	74,015	31	67	78	91.3	625
110mm f/2.5 Macro Apo-Lanthar	TBC	35	58	78.4	99.7	771

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# TOP 10 BEST SELLING CAMERA AND LENSES - 2023

▣ Hoshang Billimoria

**Yodobashi Cameras of Japan has released their list of the best selling cameras in Japan in 2023.**

- Sony A 7 IV
- Nikon Z 8
- Sony A 7 R V
- Canon EOS R 6 II
- Sony A 7 IV Kit
- Nikon ZFc
- Nikon Z 50 kit
- Canon EOS R 50
- Sony FX 3
- Nikon Z 9



**Yodobashi also released their list of the best selling lenses in Japan for 2023.**

- Sony FE 24–70 mm f 2.8 GM II
- Sony FE 70–200 mm f 2.8 GM OSS II
- Canon RF 100-400 mm f 5.6 -8 IS USM
- Tamron 28–200 mm f 2.8 – 5.6 Di III RXD E Mount
- Canon RF 100–500 mm f 4.5–7.1 L IS USM
- Canon RF 70–200 mm f 2.8 L IS USM
- Nikon Nikkor Z 24–120 mm f 4 S
- Tamron 28–75 mm f 2.8 Di III VXD G2 E mount
- Nikon Nikkor Z 70–200 mm f 2.8 VR S
- Sony FE 20–70 mm f 4 G

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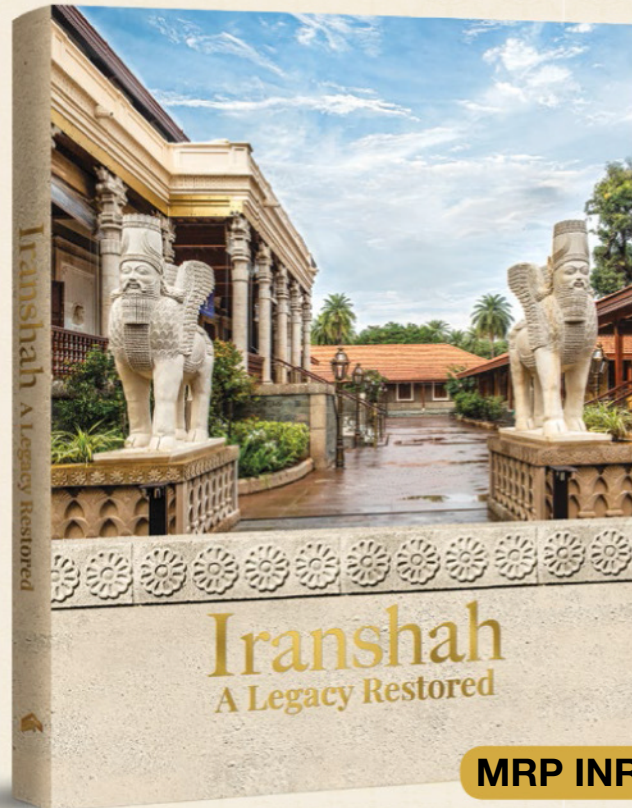
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