

What is Backpack Journalism, who is a Backpack Journalist?

by

Roberto E. Rosales



The term “backpack journalism” is defined as grass-roots, citizen journalism. Professional journalists tend to work in large institutional settings that require complex organizational structures and expensive technology. Computers, Internet, and digital technology brought journalistic activities within

reach of a common person. You literally can pack everything you need in a small backpack, hit the road, and become a journalist.

BACKPACK JOURNALISM: WHAT IS THAT ABOUT?

Journalism as we know it today has been evolving for at least four hundred years. It is the result of technological and, more generally, societal changes. In recent years, the use of advanced media technology has changed both the media content and its production processes. The way people use media has changed, too, and journalists and publishers adapted to that. Today, everything has to be reported as quickly as possible, even if the content isn't fully researched and the facts checked. Increasingly, stories are being disseminated and continuously updated, modified, even corrected, as writers continuously obtain additional information. Professional journalism used to be a lot

different. For a journalist, no formal education was considered necessary, just “a nose for news” and a skillful way of telling a story. Everything else could be learned through work and experience. Today, an ever increasing workload and time crunch lead journalists into selecting such news items that are the easiest to find and edit. Increasingly, the “raw material” for the news is being provided by public relations companies, corporate communications departments and political image-makers. When they rely on these sources, journalists are in danger of losing their soul. Instead of researching, reporting, and commenting autonomously in the interest of the public, they and their media organizations become mouthpieces of powerful interests.

Backpack journalists have the advantage of being different. It is a form of citizen journalism and is often perceived negatively by mainstream media and professional journalists.

WE CAN ALL BE PUBLISHERS TODAY

Social media tools, now at our disposal, may turn out to be as important to our future as the bow and arrow turned out to be to early humans shifting from mammoths to elks as prey. In our new world of social media we are surely chasing value in elusive contexts as our ancestors were chasing the mammoth through the frozen landscapes of the ice ages.

The world of today’s businesses, governments, and other major institutions is certainly not ready, for the most part, to accept the depth of this kind of change in their own structures that’s being fomented by social media. We’re still in the era of publishers trying to turn the wild animals of content that we chase in the nomadic social media culture into the domesticated animals of an agricultural culture. This is an important goal for the here and now, but it is going to take more imagination than that to keep up with the rapid changes that social media is enabling—much as our change in global climate is going to catch many vested interests by surprise, including political, business, and personal interests. Everyone and everything and every way that we do things is going to change more radically than most can ever imagine, but what does this really mean? What are the real things that need to be done in the rapidly emerging world of nomadic value, and what will it wind up looking like in the end? Most importantly, what do you and I need to do in order to make the best of these changes? In other words, in a world where everyone is a publisher, what does it take to be a productive and effective world citizen?

The number of people who were really serious about publishing via social media had grown so quickly that if you added them up they would be one of the world’s more sizable nations. Taken in the context of today’s social media

environment little more than a year later it's fair to say that this "Nation" is well on its way to becoming a superpower.

Some of your personal activities may seem to be too small in scope to put under the banner of a word like "publishing." After all, not everything that we publish has a huge audience or seems to be very important, but if others find what you've published to be valuable, then you've achieved what every publisher in the world tries to achieve.

Publishing by individuals is nothing new, of course. Humans have been scratching down notes to one another on cave walls, scraps of broken pottery, paper, and many other types of media for thousands of years. With the advent of the Internet and other advanced communications networks, however, the scale of what one person can do with publishing tools has changed radically. If you use technology to create information and experiences that can be shared with others, you're a publisher.

Affordable computers, mobile phones, and many other types of devices connected to communications networks have enabled billions of people to share content with one another globally and locally as never before.

INTRODUCTION

In the past 20 years, visual journalism has been profoundly changed by technology. The advent of the Internet, the miniaturization and lower price of camera equipment, and a plethora of digital editing and distribution platforms have transformed the ways in which visual reports are made. Journalists who had been part of an assembly line approach to video, each using specific skills to improve the product, are now empowered to work solo: reporting, shooting, editing and doing all final post-production tasks. This method of media production has spawned a number of names including Video Journalism, MoJos (Mobile Journalists) and Backpack Journalism. By launching the Backpack Journalism Project, American University brands this methodology and is now actively at work defining how best to train practitioners. To do it effectively requires a mastery of new technologies, a fusion of roles previously separated in the broadcast environment, and a new workflow that still affords the historic checks and balances that have been used to ensure accuracy, fairness and

balance. The method's effectiveness as a journalistic practice demands that it be developed in a systematic manner shaped by high standards and best practices. Currently, the backpack method is being used by some newspaper staffs to produce visual journalism for websites, by broadcast operations to offer unique content, and by freelance journalists who recognize its value to tell stories and present evidence and testimony for media and non-media clients. They are being joined by the members of the first true "digital generation," today's college students, who embrace the opportunity to use backpack journalism to learn diverse and marketable skills. Students see it as a logical extension of the tools they have grown up using and an appealing career choice that rewards creativity and skill acquisition over years with a single-minded focus in either journalism or video production. Many laid-off journalists who have transitioned into backpack journalists are also reveling in the creative identities they are able to pursue outside journalism from companies and institutions that see "subject-driven" visual narratives as an effective way to communicate with key audiences.

DEFINITION

The newest digital tools are the evolutionary result of the moving pictures created by the Lumiere Brothers in 1895. Constant refinement of their idea generated the shoulder-mounted Sony Portapak in the late 1960's which enabled journalists to work independently. Jon Alpert, a pioneer of independent video storytelling whose documentaries have appeared on PBS, NBC and HBO, exemplifies the impact the lone practitioner can have on mainstream broadcast journalism. His work and that of other documentarians and photojournalists who have embraced video tools is generating an appetite for the kinds of stories that can best be captured by the independent filmmakers.

Bill Gentile is among the small corps of former photographers who have migrated to video because of the intimate kind of visual storytelling that can be made using small hand-held video cameras. In the late 1990's Bill was working as a photographer for Newsweek in Latin America and the Caribbean when he met Michael Rosenblum, a former CBS News cameraman who had established his own video news-gathering operation. Gentile was struck by the power of this new method, mastered the technical transition and began creating video stories around the world for programs such as NOW on PBS, National Geographic and others.

Gentile defines his new approach to mediamaking on his blog, BillGentileBackpackJournalism.Blogspot.com, backpack journalism as "the craft of one properly trained professional using a hand-held digital camera to tell visual stories in a more immediate, more intimate fashion than is achievable using a larger team with a camera person, sound person, correspondent and producer. We do it all and, most importantly, we make the pictures which are the driving force of visual communication... In the field, a backpack journalist shoots, acquires sound, produces, reports, interviews. Once back from the field, he writes the script and narrates where necessary. Depending on the circumstances, he either edits and uploads the piece alone, or sits side-by-side with an editor."

This working definition not only describes the significant break with the historic model for broadcast video but also hints at the breadth of skills necessary to be mastered in order to do the craft well. It also reflects why this kind of storytelling appeals to the generation of “digital

Backpack Journalism natives” now reaching colleges and universities who are accustomed to understanding the world visually. These students bring a comfort and fluency with digital technology that welcomes the backpack model.

Veteran journalist and high school broadcasting teacher Cyndy Green describes the allure: “The cloak of invisibility is a major asset. Professional gear often affects people and events...they are aware of the camera, the news crew, and may not act as they would without the news present. I've covered events with both consumer and prosumer (professional) gear and could feel the difference...no eyes on me, all eyes on the event or whatever the story was about. Freedom to cover a story as an individual rather than a more formal team.” Mark Whitaker, NBC’s Washington Bureau Chief agrees. “We have the opportunity to do stories in different ways and sometimes get stories or interview, or levels of candor we couldn’t get in the past. It is a lot less intimidating if you show up with a small

camera and a microphone and say, ‘Can we talk’ than if you are showing up with a crew of eight and a satellite truck.”

Gentile interprets the success of his recent work in Afghanistan as indicative of the power of the backpack journalism method:

“Last year for NOW on PBS, I was embedded with the 24th Marine Expeditionary Unit in Afghanistan’s Helmand Province. I spent about three weeks with them and the resulting piece, “Afghanistan: The Forgotten War,” was nominated for a national Emmy. I feel the nomination validates the backpack journalism model, particularly considering the other contenders for the award -- 60 Minutes, Frontline, Dateline, 360 With Anderson Cooper -- used the traditional, highly produced team model, while I proposed, shot, produced, reported, wrote and narrated the Afghanistan piece. For logistical as well as very practical reasons on the ground, I don’t think that Afghanistan piece could have been generated with a traditional crew -- and certainly not for the same cost that I incurred.” (Cooper was awarded the Emmy.)

For practitioners there is a significant difference between stories produced using the backpack method and those now part of many television news broadcasts. Scott Anger, director of video for latimes.com, elaborates:

“Storytelling using this approach (backpack journalism) is rooted in the documentary filmmaking tradition of using visuals to drive the story. It takes time to produce visual stories because they unfold at an uneven pace. The historical problem with conventional broadcast journalism is that it is constrained by time, both in the production - which doesn’t allow journalists the time needed to shoot and produce visual stories - and in the broadcast - which is usually pre determined long before the story is reported.

“The power of this kind of storytelling lies in the idea that we are no longer working under these constraints in an online environment. Under the best conditions, we have the time to allow stories to unfold in front of our cameras, conduct the interviews we need to support those events and sit down to edit the final visual story in a journalistically sound and compelling way.

“Broadcast journalism has never risen to the level of art or documentary photography because up until the last decade it has been a technician’s craft. The operators were technicians versed in the engineering of the cameras because of their complexity. Also, traditional broadcast journalism is made by a group of people specialized in their fields such as producers, directors, camera operators, sound people, etc. Some of this had to do with the unions as well but mostly it was because of the difficulty of physically using the equipment to go from reporting in the field to broadcast. As a result, the ‘art’ part of moving picture storytelling was practiced by documentary filmmakers for cinema, which was no more open to the general public than the doors of the Big Three broadcast networks. Broadcast journalism was traditionally more about communicating the news than compelling storytelling. It suited the medium, the owners of the networks, the advertisers and the millions of people who used to tune in to the networks every evening from the late 1940s until now.”

“Years ago, I swore that I’d never work in TV because it never seemed to fit my personal sensibilities of storytelling. Old, traditional broadcast journalism has always felt contrived to me. But with the advent of small cameras and the publishing freedom we now have, video journalism - or backpack journalism - can be an extremely creative, powerful way to produce compelling stories. I think that as we move from the computer screen to the smaller cell phone screen, powerful, well-composed, well shot visual stories will be an increasingly popular way of communicating.”

GROWTH IN VIDEO CONSUMPTION

The initial success of YouTube, the mother lode of online video, has fueled hopes among newspaper executives that video can drive consumers to websites. Their optimism is well- founded. According to ComScore, which generates statistics on web use in the U.S, the amount of time spent watching videos on line climbs each month. Online video viewing “accelerated” in 2009 with “19 percent more people in the U.S. viewing video online for longer periods of time.”

Other statistics:

-- In 2009 26% of online video viewing time was spent on YouTube and 22% on the next 24 most popular video viewing sites. Significantly, 52% of online viewing time was spent on sites other than the 25 most popular, which indicates a growing fragmentation in the market.

-- The month over month data shows the average online viewer consumed 187 videos in December 2009, a 95% increase from December 2008. And indicating a growing

willingness to watch longer videos online, the duration of the average video viewed online grew from 3.2 to 4.1 minutes.

Another promising statistic is the amount of revenue video advertising generates. Since video ads began being used on newspaper-based websites, they have become the most lucrative forms of advertising available. ComScore notes, “Higher quality video and more seamless integration of video ads are emerging and adding value to the digital advertising market - to the benefit of both advertisers and publishers.” But there is a disconnect. Even though media companies are eager to tap into this rich vein of viewership, they haven’t been willing (or perhaps able in this economic environment) to shift resources to make that possible. Many managers believe quantity will push consumer demand (as it did for YouTube) and have placed a production burden on individuals and small teams to create more video. Meanwhile video journalists say consumers are in search of quality, not quantity. “It is all going to boil down to the quality of the finished product; the quality of story choice, the quality of story execution, and the quality of presentation,” says Jim Seida, a senior multimedia producer at MSNBC.com. “The bottom line is people want to watch great material. The technical quality of web-based video keeps getting better all the time and people want the good stuff. As the audience starts to see great examples of video stories on the web, tolerance for lower quality will diminish.” Whitaker echoes his sentiments. “In the first blush of YouTube’s success, many suggested that somehow on the web, YouTube showed people would accept lesser quality. I never bought that argument. As technology gets better and people get better using it, the people get used to seeing better things on the web, people won’t accept crappy- looking video. Our quality is going to drive expectations. People will want better quality.”

THE ROLE OF TECHNOLOGY

Technology has made backpack journalism possible. Innovations such as tiny, high-definition video cameras; WIFI-enabled laptops; satellite phones that can transmit digital video files are all necessary tools.

Technology under development may be equally transformative. For example, the new Digital Single Lens Reflex cameras (DSLR) that have the capacity to do both still photographs and video are ready for creative experimentation.

Meanwhile media companies are tinkering with new content models in hopes of finding a product for which audiences will pay. While they are motivated by the need to find revenue to support journalism content creation, the innovations could significantly alter the way videos are produced and consumed. The wider use of mobile devices may push production of more tightly shot and cropped video, “to get

people to the scene” than it does for video shown on sweeping wide-screen televisions, explains Peg Achterman, a former video photographer in the Seattle market and now an associate professor of communication at Northwest University. John Poole, a multimedia producer at NPR elaborates. “The more time you spend with any platform or medium, the more you can understand what works in that particular space.” He says part of the creative process is “searching for the specifics that can bring a story to life in a particular medium or on a particular display device.” Mark Whitaker, NBC Washington bureau chief says achieving quality for the big screen, which is harder, results in even better quality for small screens. “Whatever you see on that small screen has to also be projected on that big screen. The good news is that it makes us better. We’ll be more successful producing video for the small screen because we have the discipline to produce high quality for the big screen.”

Another consequence of the last quarter-century’s revolution in communication technologies has been the splintering of audience into distinct demographic groups and niche segments. The arrival of the “500 channel” cable universe in the early 1990’s was swiftly followed by the explosion of “video-on-demand” (VOD) via the Internet. The web birthed YouTube in 2006, a venue on which 20 hours of video are uploaded every minute of the day. Now consumers can turn to an endless stream of niche- interest videos on any number of devices to provide the information and entertainment that they previously obtained from radio, television and newspapers. Audience consumption time has become the new scarcity.

This change in consumption habits spurs the need to repurpose content across platforms to reach as many niche audiences as possible. This intrigues former Dallas Morning News video journalist David Leeson. “The benefit of using video as a content-gathering medium is that one can produce an audio story that works as a radio piece or it could be turned into a written piece, worked together with still photos to produce an audio slideshow for the web or be presented as a pure video that could be turned into television, website, or a DVD offering.” One can even break a documentary project into a form of installation.” Leeson did this with his documentary on war photographers, “At War,” which he edited into 49 video podcasts. Similarly, Gentile generated 23 hours of content for the 22-minute Afghanistan piece for NOW. “”All 23 hours of that material belong to me. I can re-edit or re-package that material to create a feature-length documentary for independent distribution.”

Technological changes have also transformed journalists. A profession that saw only minor change for most of the last century, journalism is now in a constant state of flux. Journalists have learned that keeping abreast of change is the key to continued employment and the industry’s future. “If we worry solely about holding on to what we have, we are doomed.” cautions Joe Krebs, co-anchor for News4Today in Washington D.C. He says the focus must be on “what is the new next thing we are creating (through) changes in technology and approach and how can we make it as good as it can be.”

BEST USE OF BACKPACK JOURNALISM

Almost all broadcast operations and many newspaper websites are using some variation of the backpack journalism method. To do it well, takes a fundamental understanding of the kinds of stories that are best told this way.

NBC's Whitaker cites the work of Richard Engel, NBC News' chief foreign correspondent. "While covering the Iraq invasion and its immediate aftermath, Richard was keeping a personal diary with his own little video camera. When he got back to the States, he took that material and turned it into an hour-long documentary that won all the awards."

What this method cannot do is replace other types of reporting. Backpack journalism should be seen as a refinement of an existing method, not a replacement. Broadcast instructor Green has created a series of questions that can help journalists decide whether using the backpack approach makes sense:

- First, ask yourself why are you using video? Is it because everyone else is? Does it warrant the cost and manpower time? Does it contribute to storytelling and give your community/audience the information they need?
- Second, be selective in choosing your stories.
- Third, break your visual stories into categories (one-day turnaround, longer turnaround) and have a number of each.
- Fourth, have realistic expectations about what backpack journalism stories can and cannot do.
- Fifth, only have staff members who WANT to take this job on do so. Forcing the issue will create animosity and it may spill over into the final product.

Story types clearly dictate the best medium with which to tell them. And there is room for many kinds. This point was demonstrated by Seattletimes.com producer Tiffany Campbell at the 2009 Online News Association. Campbell showed a video clip of a truck accident shot by a Times staff photographer with an inexpensive flip video camera. The video began as he drove directly under a truck teetering on the edge of the overpass above him. His excited voice reflected the sense of danger and the slight camera motion created by filming as he drove, yielded a "cinema verite" effect that seemed to be amateur in execution. Yet it conveyed a kind of authenticity not captured by the more conventional "standup" shot of a reporter a safe distance from the scene.

CHALLENGES

The amount of time it takes to create and process good video and the additional time required when a journalist works alone is a major source of conflict in many newsrooms.

“I am a big believer that they (newsroom managers) need to try the method themselves so they understand what it takes to do it well,” says independent producer Sacha. “Without doing that, they won’t understand the effort and time required and they won’t understand how many people are necessary to create a good piece and how long it takes to craft each piece. At Mediastorm, we were producing video pieces at a high level much like a documentary film. It wasn’t uncommon to have 12 hours of work into every finished minute of video.”

Video not only takes time to create, but the limitations of broadband require video to be encoded and compressed at bit rates that balance quality and delivery speed. This post-production process is a barrier to workflow.

“File-based video workflow is time-consuming,” the Herald’s Fadely says. “As opposed to television old-school playout, having the need to compress and render web-based video files for delivery takes much more time.”

Disagreement over how much more time it takes a single journalist than a team to produce a story is another chafing point in many newsrooms. “It takes more time for one person to source a story, film it, fact-check, edit and output it than it would if members of a crew were to do the same,” Fadely adds.

For consumers of web video, the greatest challenge is finding it.

On many newspaper websites video is promoted by small, overlooked links, or fails to stand out from the adjacent, highly-produced video advertisements. This play is indicative of a deeper problem. “Many news organizations, newspapers especially, felt industry pressure to jump into video journalism without a comprehensive strategy for management, training, implementation, workflow, support, and monetization,” says Anger of latimes.com. “The general attitude seemed to be that everything would fall into place once journalists were equipped and producing.

That hasn’t happened and some newspapers have started to re-think whether video journalism is a good fit within the current structure.”

Even great video stories must wrestle for good space with news. News developments, even incremental ones, almost always bump documentary-style storytelling off the home page to less visible placement. De la Cruz of the washingtonpost.com, puts the challenge this way: “There is a conflict between always fresh vs. replaying the best stuff.

Cable networks make sure people are really seeing their best work by continuously replaying it. It isn’t about the visual journalism as much as it is about effective promotion. Most newspaper websites have yet to master this approach. We are really still trying to figure out how to make video findable and searchable on the web so people can find it and see it.” Which raises the question, de la Cruz adds, “Why are we working so hard to produce the volume of content demanded by newsroom managers, if we are only going to be showcasing 25% or less of what we produce on a

daily basis.” In contrast, he cites the reality of NPR or cable news programs which concentrate the majority of resources on six to ten stories each day.

THE FUTURE OF BACKPACK JOURNALISM

The backpack journalism method has great potential, says Anger of latimes.com. “It can be art. It has the visual power of photography with added value of audio information... and another level of creativity...It is the child of documentary non-fiction filmmaking, which is a powerful storytelling medium. Why can’t video journalism be at that level?”

Independent producer Sacha sees the method as a key to unlocking new techniques of storytelling; enabling a way to move past the image conventions and story lines that have defined journalistic storytelling in mass media during the last part of the 20th century. “So few are striking out with new visions and finding new ways of telling stories. I’d like to see us relying on the trite tricks of the past 50 years,” he says.

But who will pay for it?

Most journalists say there are few opportunities at existing media companies. But practitioners are finding non-profits, community and government organizations and even corporations are eager clients who view video as a way to connect with niche audiences. Toronto Marketing Consultant Sandra Bekhor says online video could help a company “engage with growth markets in a manner previously monopolized by television... because online video intensifies the online experience without the cost or commercial dimension of television.”¹

Former Dallas Morning News, photojournalist David Leeson has found steady work producing short documentaries for Southern Methodist University, AARP, NRA, Children’s Medical Hospital and even a local car club in Dallas. P.F. Bentley, a former contract photojournalist

¹ Bekhor, Sandra, “Marketing Professional Services With Online Video,” Toronto Marketing Blog, <http://torontomarketing.blogspot.com/2009/09/marketing-professional-service-firms.html>

covering politics for Time magazine, now shoots documentary videos for corporate clients. “My clients like me because they are getting twice the quality for half the price, compared to conventional use of broadcast crews to make video,” he says. “There is no real money in video journalism presently.”

Trailblazing videographer Rosenblum tells young people to strike out on their own to form small companies where they can control the production processes and distribution channels and earn revenue from every part of

the effort. “Have an idea, make it work, capitalize it, and then sell it,” he says. “There is still more money chasing good ideas than good ideas chasing money.” In time, some journalists say, media companies will figure out a workable revenue model and provide a home for video storytelling produced through the backpack journalism method. “There is great strength in existing news brands,” Time’s Duff says. “As long as we can maintain the integrity of what we do, at some point we will figure out how we can get the revenues and make money again.”

THE ROLE OF THE BACKPACK JOURNALISM PROJECT

Most backpack journalists start as reporters or photographers and are skilled at using either words or visuals to tell a story. Backpack journalism requires that they know how to do both.

De la Cruz of washingtonpost.com came to video storytelling with a background as a writer and musician. He had a feel for video editing “because music teaches a lot about rhythm, but the thing I was missing was a good sense of visuals.” He had to learn how to “to catch emotions, gestures, use color and light - all that stuff - so that the camera is more than just a recording device.” Critical to his growth was the learning environment at washingtonpost.com. “It was very organic as we figured out what worked for video storytelling, flowing from newspaper concepts.”

De la Cruz was lucky. So are the journalists at KGTV10News in San Diego. There Joe Little provides two weeks of one-on-one training just to introduce key concepts. “The first week is solid shooting; the second week is all editing.” The rest of the skills and concepts are learned by rubbing elbows with colleagues in the newsroom.

But for most people who want to learn how to tell stories visually, no such newsroom exists.

The Backpack Journalism Project at American University has been established to meet the compelling need for a systematic approach to training this method. The breath of technological fluency, the mastering of storytelling techniques, and understanding standards and ethics that guide practitioners demand a structured process. In conjunction with the university, Gentile offers Backpack Journalism Workshops, four-day intensive shooting, editing and critiquing sessions. The university’s program is expanding to include advanced courses on shooting, interviewing, producing, writing, sound, narrating and editing to culminate in a Backpack Journalism Certificate. American University recognizes the value and potential of backpack journalism and wants to nurture its growth. Guided by the school’s mission to “act on our values through social responsibility and service” AU seeks to create a community of backpack journalists who will learn from experts and industry pioneers, help shape standards of ethics and quality and become the next generation of leaders in this emerging profession.

FURTHER QUESTIONS TO CONSIDER

Some of the fundamental questions to consider as it Backpack Journalism continues to take shape include:

1. Can mainstream media companies persuade fragmenting audiences that some version of mass media is still valuable enough for civic engagement worth paying for?
2. What strategic roles can visual storytelling play in existing media companies?
3. What technological developments will make it easier for backpack journalism to reach wider audiences and pay for its creation?
4. One of the great stumbling blocks to viewing video on the web is finding it. Have any websites found a way to promote both breaking news and visual storytelling?
5. Will an appetite for quality video drive consumers to demand better storytelling on media websites?

HOW TO BUY A DSLR



DSLR cameras represent what is often considered the preëminent digital capture technology available today, through their meshing of the highest image quality, speed, intuitive design, and modular capabilities to suit nearly any type of photography imaginable. Representing the first step toward serious photography for many, or simply additional tools or upgrades for the veteran, DSLRs cover a broad expanse of capabilities and are often intended to meet specific goals while still retaining the overall imaging benefits that are suitable to many.

From their beginning, DSLRs were designed to reflect the most popular type of film camera, the

SLR. This single-lens reflex design traditionally incorporates an optical viewfinder, reflex mirror, and single taking-and-viewing lens to function properly. While digital cameras are not constrained to the same physical limitations as film SLRs were, they still revolve around the basic premise of design that includes a viewfinder, a reflex mirror (with some recent notable exceptions) and an interchangeable-lens system. When searching for a DSLR, there is a range of options to consider regarding what type will best suit one's own personal needs. Not all photographers need to have the ability to record still photographs at an impressive 36.3MP, nor do all photographers need to rely on compact and lightweight solutions, since the greater emphasis might be tripod-based work or other shooting styles for which a larger and faster body is most beneficial.

Lenses

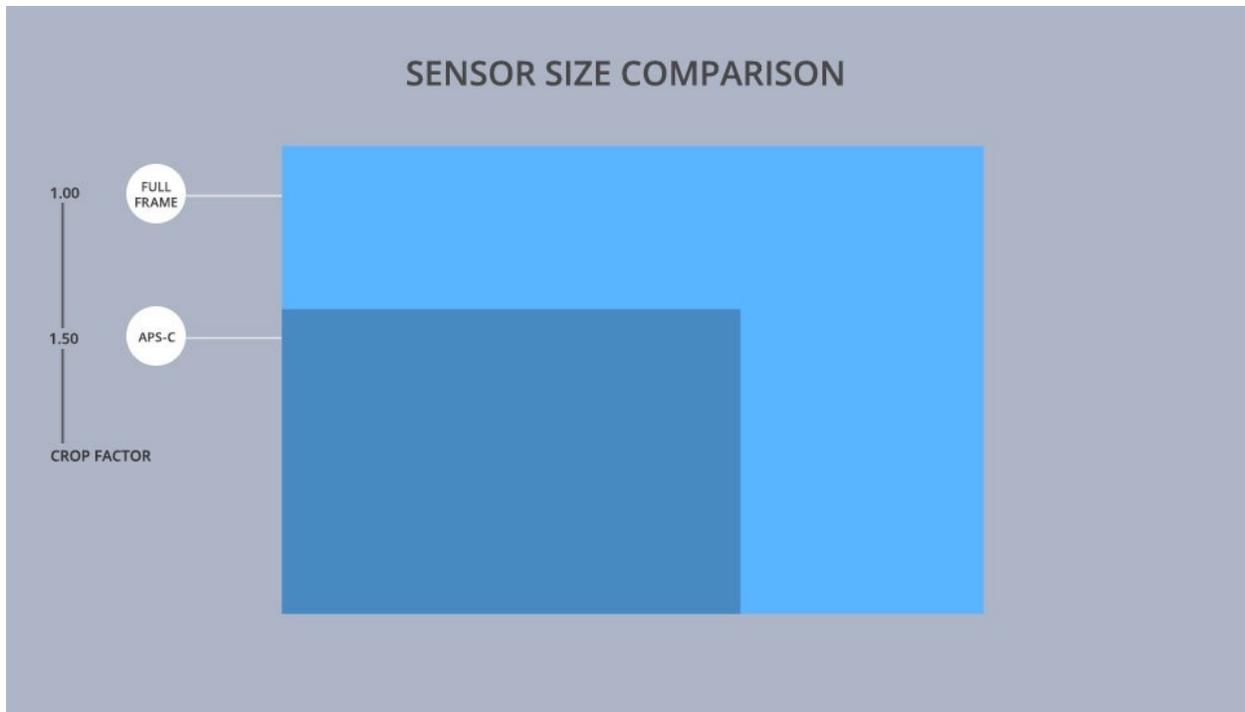
One of the most important characteristics to consider when choosing your ideal DSLR is its compatible system of lenses. Lenses are, somewhat arguably, the most important tools for elevating the actual quality of imagery and can be the deciding factor between professionally

rendered photographs and average snapshots. Since the choice of a DSLR directly affects the type of lenses being used, this is the first crucial step. Take into consideration any currently owned lenses and whether they are compatible with different DSLRs of interest. Lenses often end up being the constant investment over time in regard to photography equipment, with camera bodies fluctuating more quickly.

DSLR Types and Sensor Size

Currently, the two main sizes of image sensors in DSLRs—full frame and APS-C—have their own benefits, as well as some drawbacks. APS-C-sized sensors, also called DX-format or cropped sensors, are the most common sensor size found in most entry level, mid-range, and even some professional-grade DSLRs. This sensor size is slightly smaller than a full-frame sensor, which is based on the traditional 35mm film-frame area: about 36 x 24mm. APS-C sensors measure approximately 23.5 x 15.6mm, with some variance between manufacturers. This smaller sensor size gives a narrower

apparent field of view when shooting with the same focal-length lens, since the sensor is essentially a predefined crop of the image circle that is represented in 35mm/full-frame terms, hence the term "crop sensor." The effective "crop factor" that can be used with APS-C sensors is approximately 1.5x for most brands and 1.6x for Canon, for determining a representative focal-length equivalent for lenses. Since the field of view is narrower with an APS-C sensor than a full-frame sensor, a 50mm focal length on an APS-C camera will provide approximately the same field of view as a 75mm lens. This added sense of reach offered by an APS-C-sized sensor is conducive to shooting wildlife, sports, and in other situations where longer focal lengths are the norm.



A full-frame sensor, on the other hand, offers greater image quality and detail simply due to the larger physical size of the sensor—there is physically more room on the sensor for information. Similar to comparing medium format film with 35mm film, a full-frame sensor compared to an APS-C sensor is, typically, able to acquire greater tonal fluency and color gradations, as well as improved low-light performance—higher ISO ranges and lessened image noise—because the size of the actual pixels is larger, as well. Since there is no crop factor associated with a full-frame camera, too, there is a greater array of prime wide-angle lenses available.

The physical size of the camera is also derivative of the sensor size; APS-C cameras tend to be smaller and lighter compared to their full-frame counterparts. When coupled with longer, or more, lenses plus accessories, an APS-C camera is often the ideal companion for traveling or at times when portability is an asset.

Other Form-Factor Considerations

Besides the size of the sensor, other factors determine the overall physical size and weight of a DSLR. Other elements like the viewfinder type, LCD screen size, integrated battery grip, and other features can all affect how large and heavy a camera is (none of which are necessarily contingent on the size of the sensor alone). One of the most considerable factors in weight is the material used to construct the body: typically some kind of a metal chassis, an all-polycarbonate design, or a hybrid of the two. All metal, often magnesium-alloy body designs, such as the **Nikon D4S**, provide the greatest durability and

innate weather protection, but at the cost of extra weight.



These metal-body designs also possess more tactility due to their heft; they often have a greater feeling of presence compared to more compact, lighter-weight options. An all-

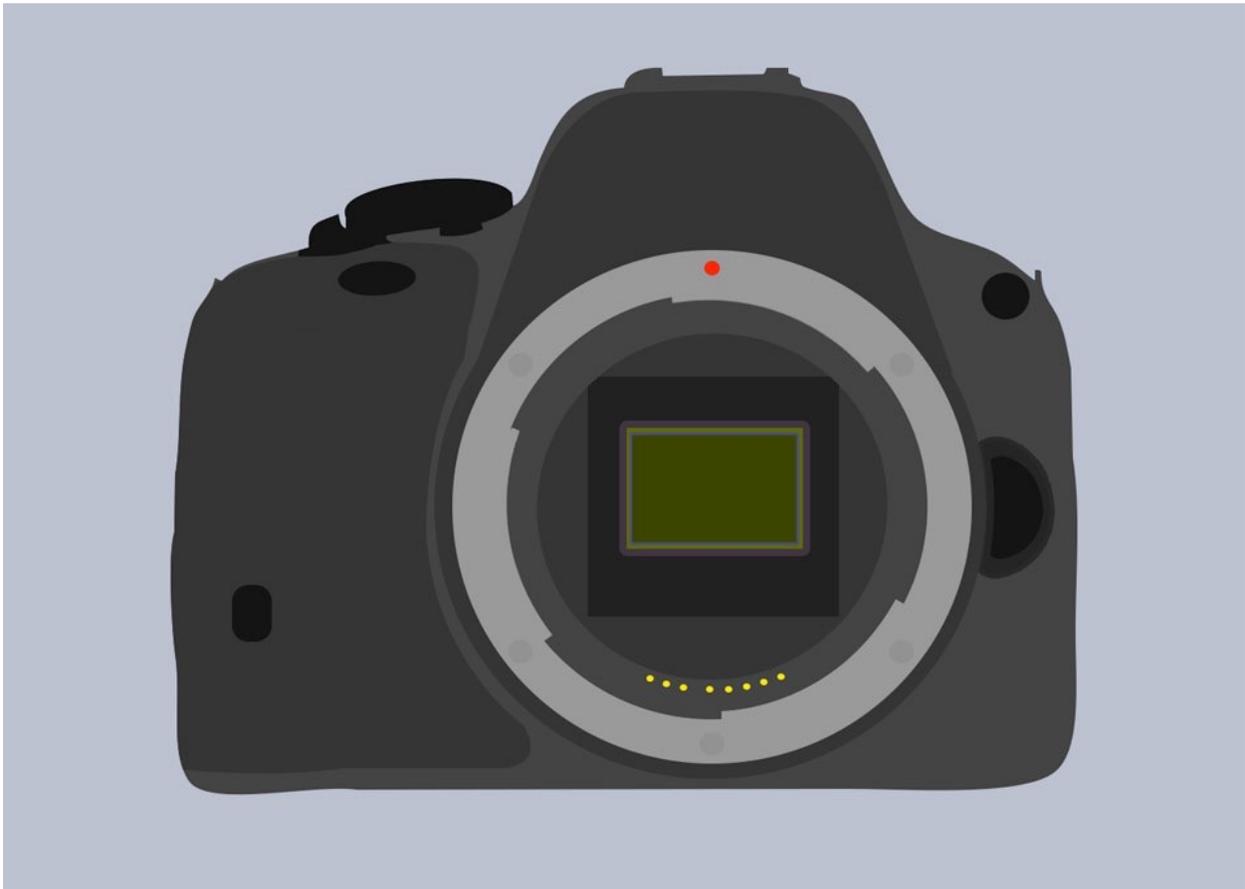
polycarbonate body, like the **Canon EOS Rebel SL1**, is often reserved for more value-intended bodies or lightweight, entry-level models. The lack of metal in the frame does offer less rigidity than a metal chassis, but does significantly lighten the overall load. Many bodies throughout the true entry-level to true professional range have different ratios of both metal and plastic to straddle the line between durability, weather sealing, and lightweight portability.

Different Grades of DSLRs

Entry-Level

An entry-level DSLR is the most affordable type of DSLR and typically stands to be either a photographer's entry point into interchangeable-lens cameras, or can function equally as well as a backup camera for a working professional, or a traveling camera for an enthusiast. The designation "entry-level" simply refers to a mixture of attributes and features that render the camera especially friendly to use and functional, as a good starting point, and as something to progress from once a greater understanding of camera and exposure controls is understood. The

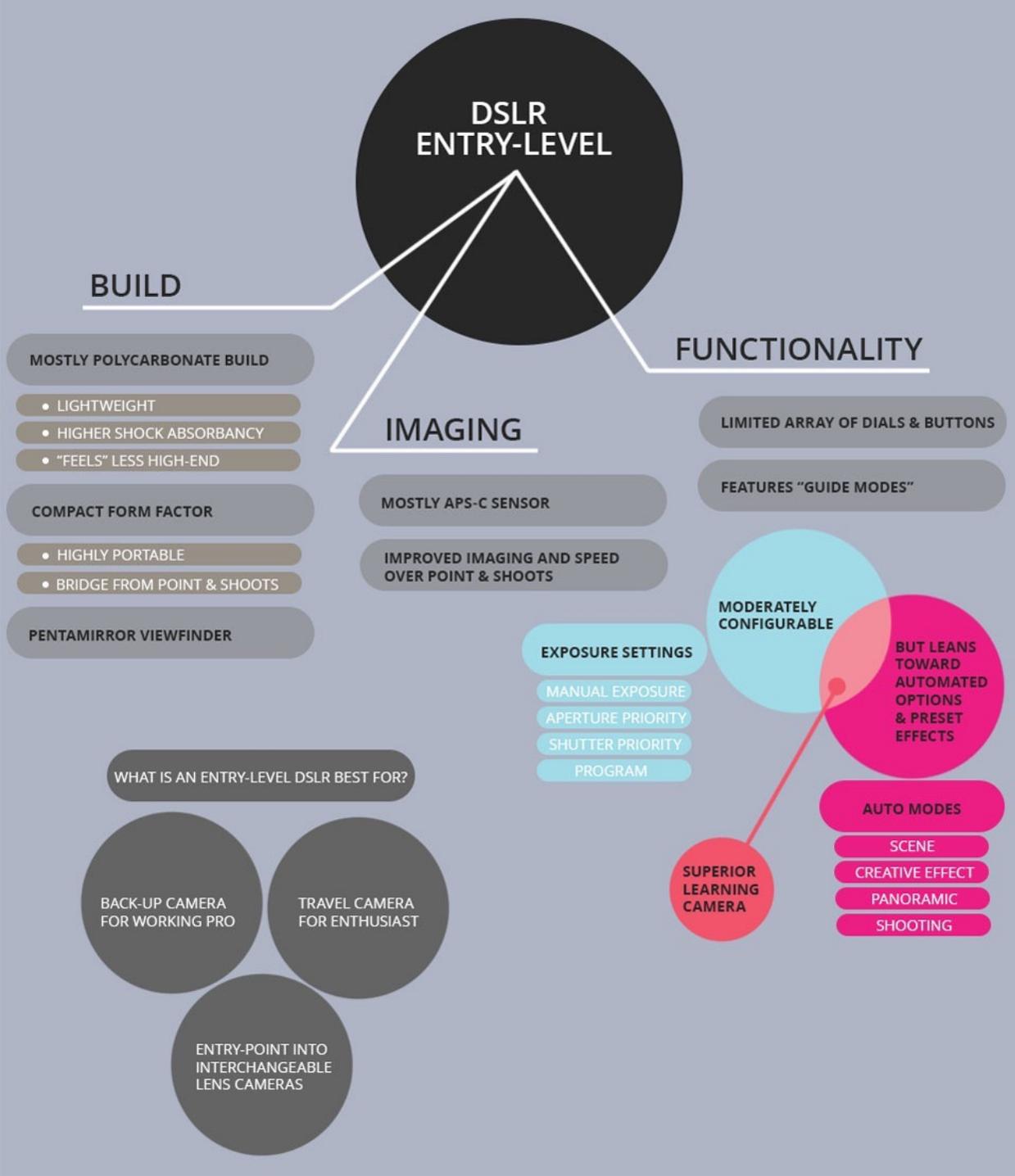
imaging quality of these cameras is by no means diminished, but rather the range of options for how to control the DSLR tends to lean more towards automated options and a variety of preset effects for achieving a certain look without the rigorous know-how needed if you were to use an entirely manual camera.



Entry-level cameras will most often feature an APS-C-sized sensor and polycarbonate construction, to make them compact and lightweight. Since its goal is to serve as an apt bridge from a point-and-shoot or similar camera, it

is not alienating in its stature when compared to larger, professional-targeted models. Other nods toward a more compact size include the incorporation of a pentamirror viewfinder, as opposed to a pentaprism, and a smaller array of physical dials and buttons on the top and rear plates of the body. This is still to say, though, that a DSLR's main asset, aside from improved image quality and speed, is its range of configurability.

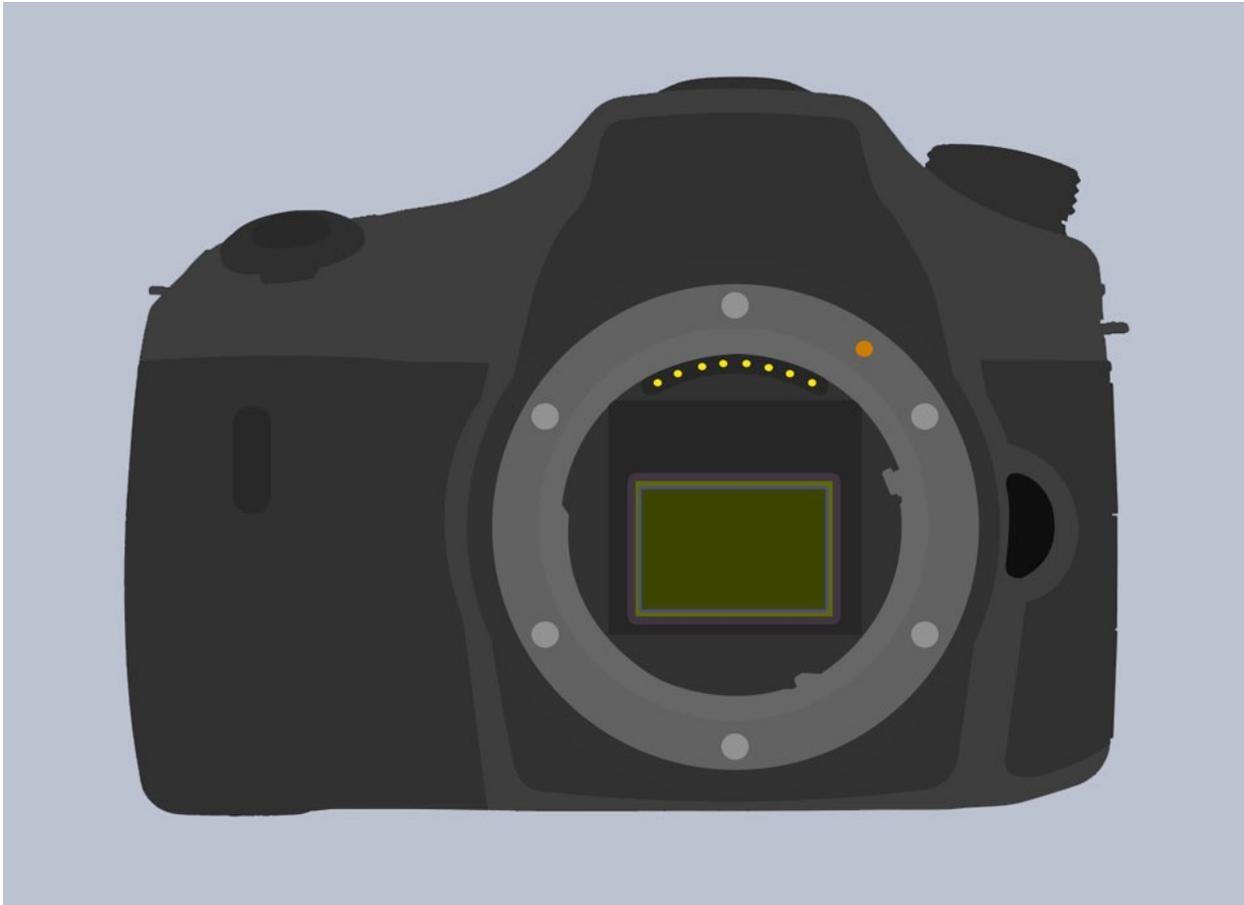
This regard is not lost on entry-level bodies, since all still include the ability to adjust exposure settings using program, aperture priority, shutter priority, and manual exposure modes, but complements these conventional modes with the inclusion of intelligent, automated shooting modes, creative-effect modes, scene modes, and panoramic modes. These intuitive auto and creative modes strive to lessen the burden of post-production and increase the efficiency of producing a share-worthy image directly in-camera. Additionally, many entry-level DSLRs also feature guide modes to help familiarize oneself with all of the controls and settings of a DSLR for a greater understanding of exactly how to produce specific types of imagery.



Intermediate

Next in line is the expansive "intermediate" category, which encompasses the greatest number of DSLRs, ranging between entry and professional levels. This is one of the most constantly expanding regions of camera technologies and is often the range of cameras in which the forefront of evolution begins, such as in the case of the **Canon EOS 70D**, which offers redefined autofocus technology along with an enhanced feature set, compared to its predecessor.

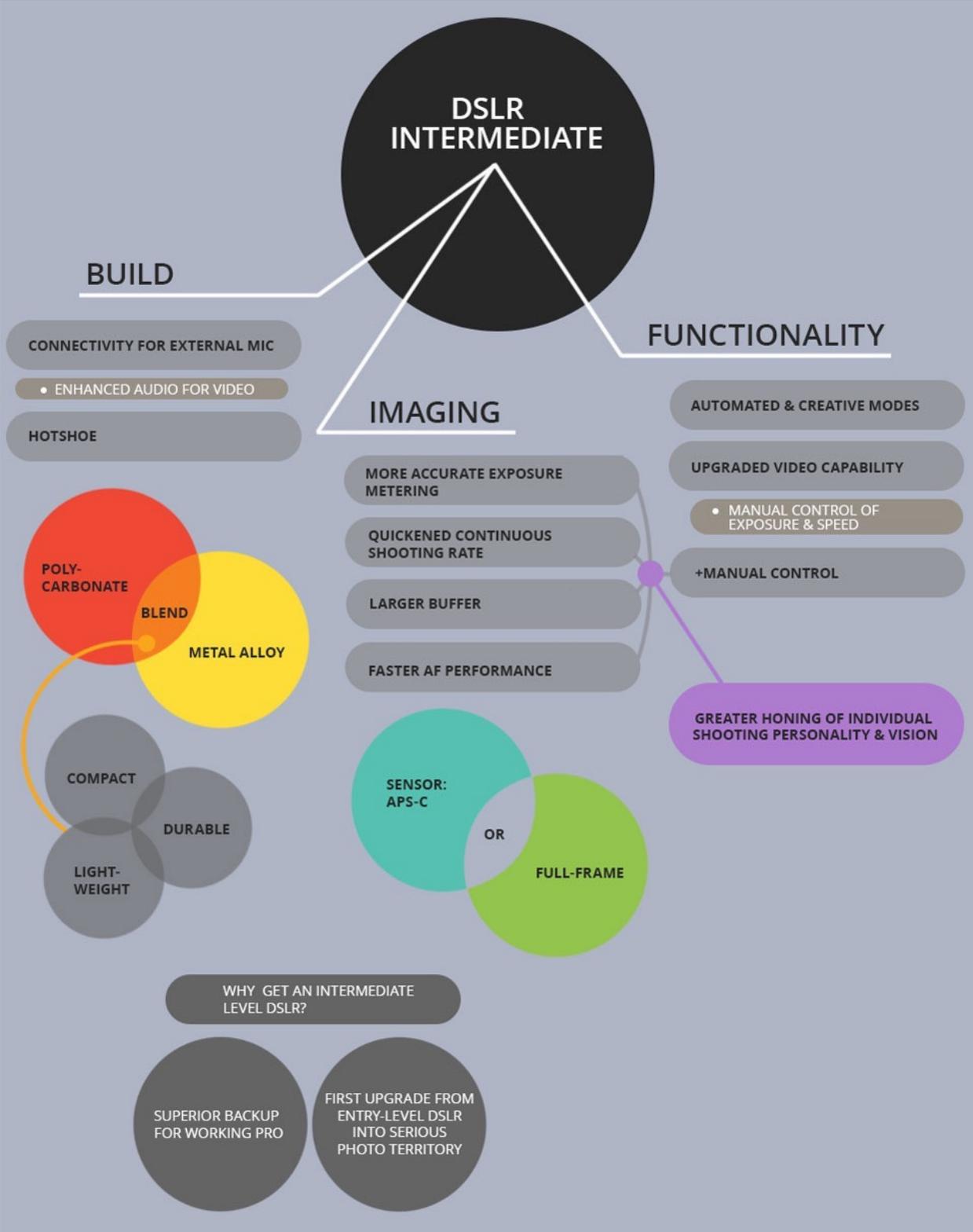
Intermediate cameras can feature either APS-C or full-frame sensors and typically utilize some blend of both polycarbonate and alloy to produce a body design that is compact, lightweight, and durable. Intermediate DSLRs stand as a common growing point for someone looking to upgrade from their first DSLR and, just like entry-level DSLRs, are valuable backup options for working shooters who need more than one body.



Intermediate DSLRs will often combine both a structure of automatic shooting options and creative modes along with an expanded set of manual controls, allowing the user to shoot in his or her preferred manner or skew the camera's settings based on specific shooting situations. Faster AF performance, a more accurate exposure-metering system, and a larger buffer along with a quickened continuous shooting rate, are also all features that begin to become more prominent when upgrading to the intermediate line of DSLRs. Each of these technical improvements leads to

greater honing of one's own personal visions, whether it be sports and nature shooting or portraiture and still life; intermediate DSLRs become the beginning point at which photographers can pair a camera more to their own personal traits, and often each brand will offer several viable options that all meet individual criteria.

Video recording is also upgraded in this realm of cameras, with most of them supporting full HD 1080i or 1080p recording with the ability to manually control exposure and audio settings while recording. They commonly feature connectivity for an external microphone to enhance audio for video and also have hot shoes for adding lights, flashes, or other mounted accessories.



Professional

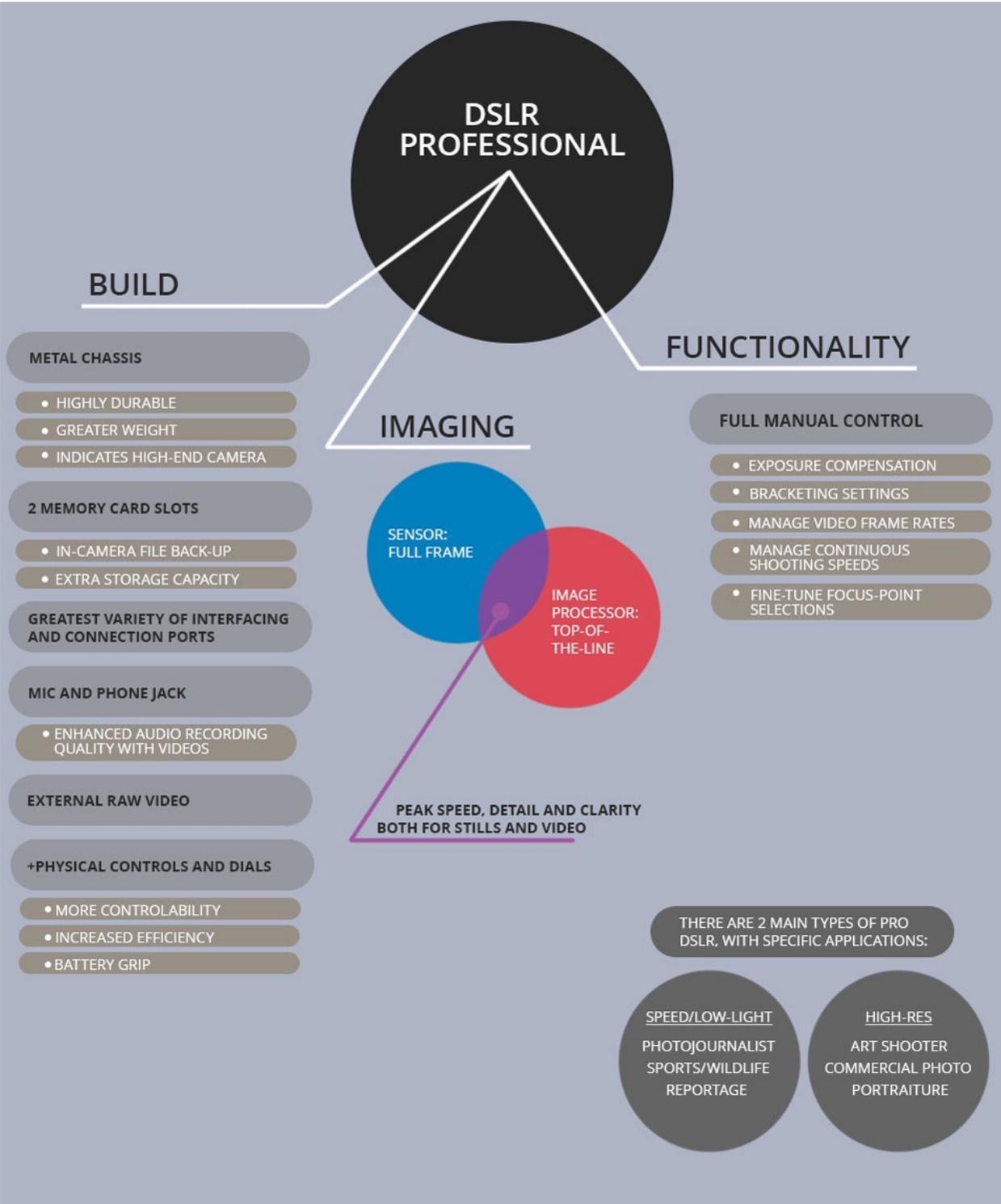
Professional-grade DSLRs are typically the flagship camera of a company and are known to represent the highest quality in regard to physical build, manual control, image quality, sensitivity, and speed. Typically featuring full-frame-sized image sensors and top-of-the-line image processors, professional DSLRs separate themselves most simply in regard to attaining the most detail and clarity when shooting both still photographs and video. However, a number of APS-C cameras can still be considered professional grade, such as the **Nikon D7100**, which employs a fast continuous-shooting rate along with an advanced autofocus system that benefits from the crop-sensor format to render it as a prized camera for sports and wildlife photography.



When moving up to a professional DSLR, photographers are typically familiar with exactly what they need from a camera and understand the controls they need in order to accomplish a specific purpose. Full manual control to the utmost

regard is a standard feature in professional DSLRs, with the ability to fine-tune focus-point selections, exposure compensation and bracketing settings, and manage a range of video frame rates and continuous-shooting speeds. Also common in professional DSLRs is the inclusion of dual memory card slots, either for greater storage capacity or in-camera duplication and backing up of files, as well as a greater variety of interfacing abilities and connection ports like flash-sync ports, external RAW video recording, and both a microphone and headphone jack for enhanced audio recording with videos. More physical controls and dials are also available in order to increase efficiency and controllability while shooting.

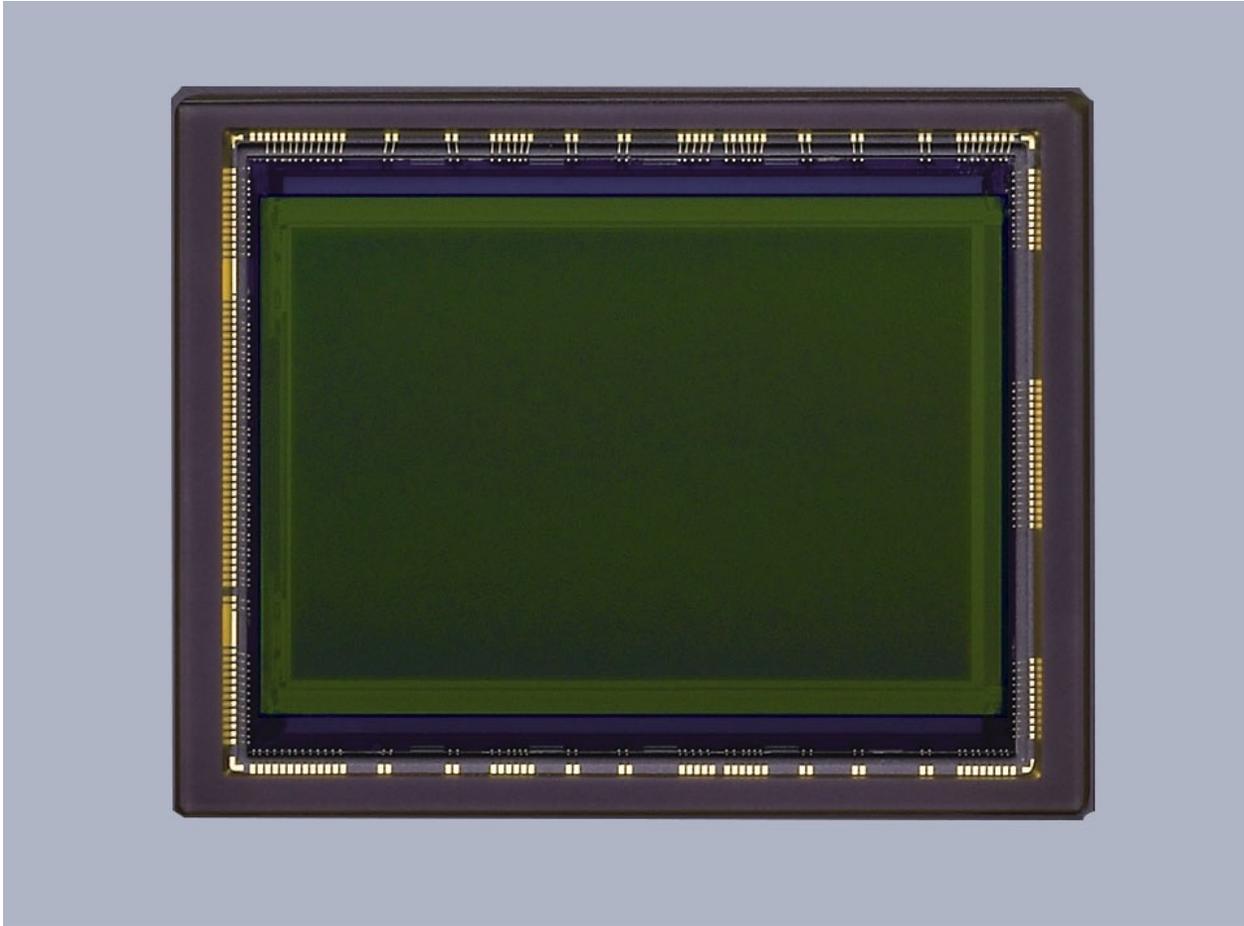
Professional DSLRs tend to be split into two main categories, the speed and low-light category and the high-resolution category. These two categories fit the working photojournalist, sports, or reportage shooter, or the art, commercial, or portraiture shooter, respectively. At this level, the ability to pair a camera to one's own shooting needs is more important than having an all-around solution that cannot perform at the highest level in one's chosen area. For some, the benefits of having a full-resolution 18MP continuous shooting rate of 12 fps far outweigh the ability to produce 16 x 24" prints at 300dpi directly from the camera.



Main Technologies to Consider

Sensor and Image Processor

The image sensor and processor are the central, core elements of a DSLR and are responsible for the imaging capabilities they possess. As previously mentioned, the two common sensor sizes are APS-C and full frame, each of which has its own inherent benefits in respect to imaging quality and the field of view with paired lenses. When combined with an imaging processor, the two technologies work together to enable video recording, continuous shooting, and the range of ISO sensitivities and image quality in difficult lighting conditions. Some cameras, such as the **Canon EOS 7D Mark II**, utilize multiple image processors to aid in even faster performance, making them ideal for high-speed continuous shooting and video recording. While a processor facilitates faster continuous-shooting rates, it also helps to process higher resolution and RAW file types more effectively.



Autofocus

The autofocus system is another highly important feature of DSLRs, to which most users should pay much attention. Autofocus systems are evolving constantly, with newer systems utilizing two different focusing methods in order to provide sharp focus that is both precise and fast. Conventionally, DSLRs use a phase-detection method for acquiring focus that employs a number of fixed AF points to acquire focus, based on

detected objects throughout the scene. The greater the number of AF points, the more precision with which the AF system can function quickly, since the points will be covering a larger and more dense area of the scene. Beyond the actual number of focus points there are also different types of points, such as cross-type points and points that are sensitive at certain apertures.

Cross-type points are, as their name implies, a type of focusing point, or sensor, that is a physical cross (+) versus a standard point that is only a vertical line (|). When these standard sensors work to determine focus, they split incoming light in one dimension; cross-type sensors split incoming light in two dimensions to acquire focus more easily in a greater range of lighting scenarios. Furthermore, many cameras feature specific points, most commonly the center point, that are capable of focusing with lenses with a maximum aperture of $f/5.6$ or $f/8$. Seemingly, this doesn't appear to be a big deal, since even the slowest lenses have a maximum aperture of at least $f/5.6$. However, when working with longer telephotos attached to a 1.4x teleconverter, that maximum aperture is subsequently halved, making it effectively $f/8$. On cameras that only have a focusing point sensitive to $f/5.6$, these teleconverter-enabled lenses will not be able to

reap the autofocus benefits of the camera, since there is not enough light being delivered to the sensor during composition.



9-point autofocus

The second focusing method that is currently being integrated into some DSLRs is contrast-detection focusing that, up until recently, has been relegated only to cameras without a mirror, such as point-and-shoots and mirrorless cameras. This type of focusing is sensor based, and thus cannot function with the reflex mirror down, since it is directing all of the light through the optical viewfinder. Contrast-detection focusing works when shooting movies or still images in live view and in certain cameras, like the **Sony a77II**, a translucent mirror design allows the mirror to continuously direct light to both image and autofocus sensors to provide continuous phase- and contrast-detection focusing for quick and precise performance. They also consequently utilize an electronic viewfinder, rather than an optical viewfinder. As previously mentioned, too, the Canon EOS 70D also employs contrast-detection focusing in a unique way via Canon's Dual Pixel CMOS AF, which allows for highly controllable, touch-enabled live view focusing, due to its incorporation of two separate photodiodes within each pixel for an even denser network of phase-detection-gathering elements.

Image Stabilization

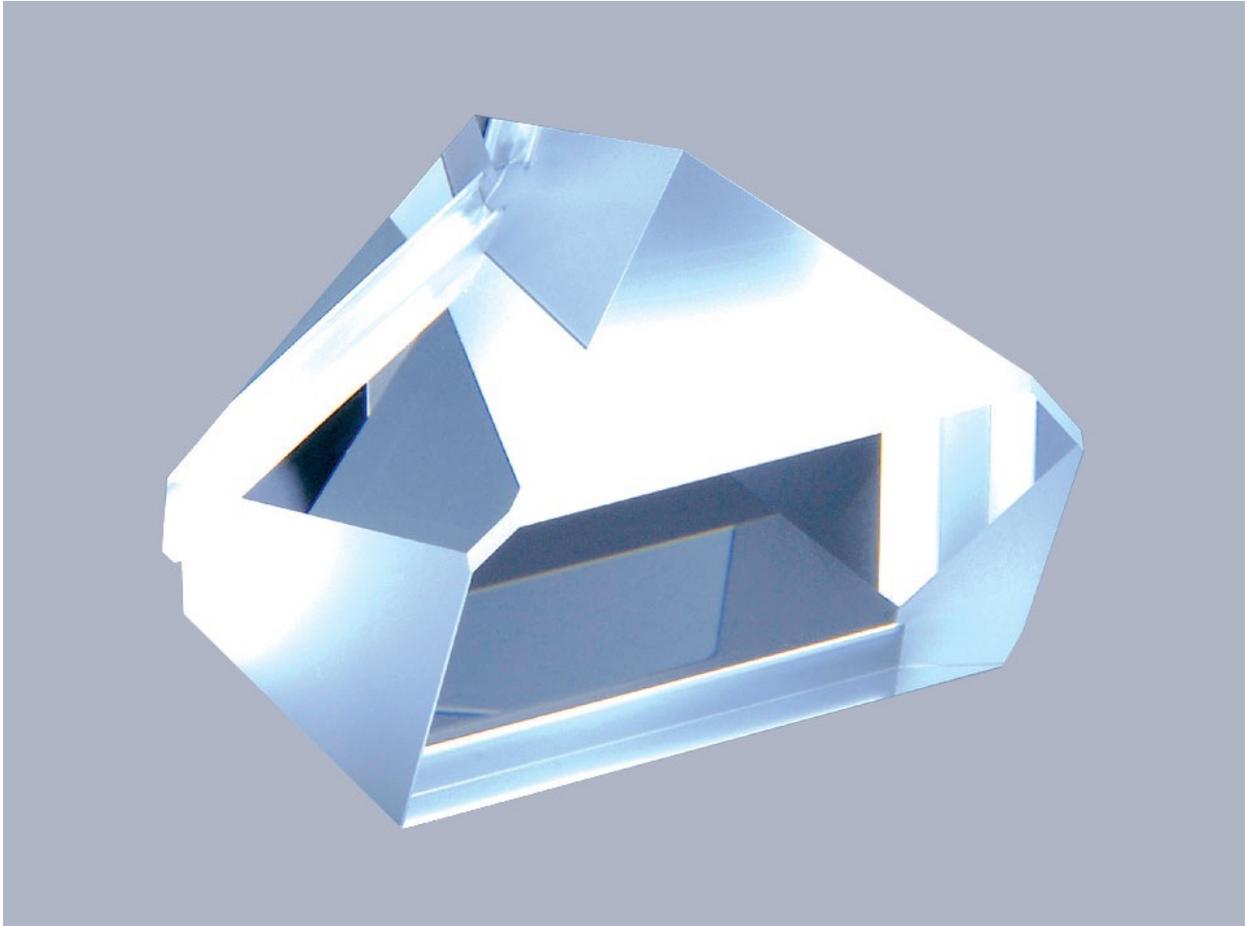
One of the most useful assets for many photographers is some form of image stabilization, which helps to minimize the appearance of camera shake caused by lengthy shutter speeds or longer focal lengths. There are two main types of image stabilization available: lens-shift type image stabilization and sensor-shift type image stabilization. Depending on the manufacturer, some prefer to incorporate the necessary stabilization systems within the lenses, whereas other manufacturers prefer to incorporate in-camera image stabilization.

The benefit of having in-camera image stabilization is that any mounted lens effectively becomes stabilized and reaps the benefits of the system for more effective handheld shooting capabilities. On the other hand, the benefit of incorporating image stabilization within select lens designs is that it can be tailored specifically for a certain lens in order to maximize stabilization performance, and is subsequently more effective than body-based stabilization.

Monitors and Viewfinders

All current DSLRs provide both a rear monitor, for live view monitoring, image playback, and menu

navigation, and a viewfinder for eye-level finding when composing imagery. With the exception of the Sony Translucent Mirror cameras, DSLRs utilize an optical viewfinder system with either a pentaprism or pentamirror design. Pentaprisms are the more traditional components of the viewfinder for single-lens reflex cameras and are constructed from glass to provide a bright image when viewing. This comes at the expense of slightly greater weight and size when compared to the pentamirror, which employs a system of mirrors to produce a viewable image, albeit slightly darker than that of a pentaprism. High-end cameras tend to have pentaprisms, whereas entry-level DSLRs more often use pentamirrors to maintain the camera's light weight and compact appeal. One other consideration to make when comparing viewfinders is their frame coverage, which is usually within a range of 95 to 100%. 100% is the ideal choice in order to see everything within the frame during compositions, but some cameras lose a small portion of the image due to design constraints, and therefore have less than 100% frame coverage.



The rear monitor is an area of the digital camera that has seen significantly more improvements over the years than viewfinders, and is beginning to grow in size, increase in resolution, and integrate articulating capabilities to better support viewing from high and low angles. Most cameras have either a 3.0-inch or, more recently, a 3.2-inch monitor, with resolutions ranging from 230k-dot to well over one million pixels. The higher the resolution, the sharper and brighter the image will be on the monitor. Many monitors also benefit from a tilting or a swiveling design that will allow

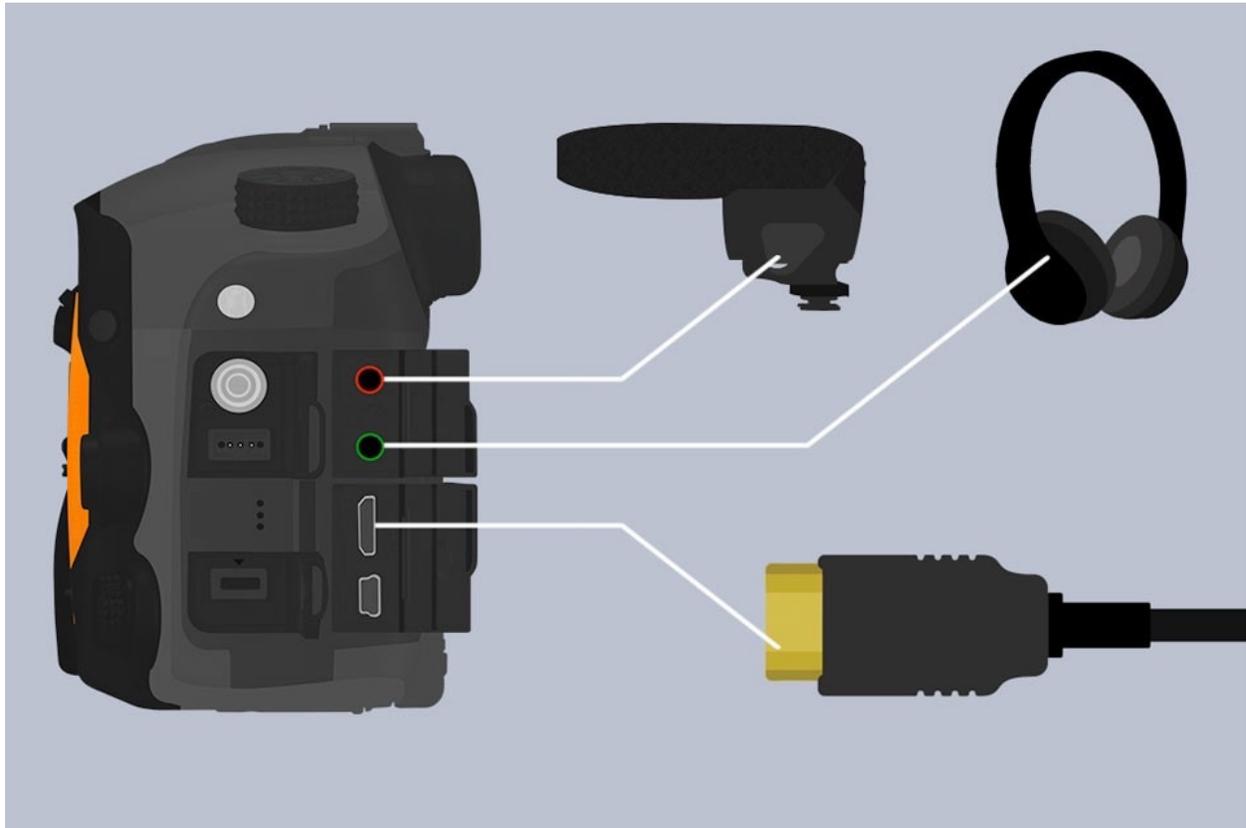
the screen to be positioned in such a way that it can be used from high or low angles without your having to crawl on the ground; or simply point and shoot from higher angles.

Lastly, many screens now also feature a touchscreen design, which allows for both menu navigation as well as direct camera and focus controls from the screen itself. Particularly helpful for focusing and metering, with a touch-enabled system, one can pinpoint specific areas for critical focus and spot exposure metering for greater control than an average metering or focusing system. Touchscreens are also generally more intuitive to work with compared to using separate wheels, dials, or directional pads for navigating through menus and viewing photos or movies.

Video Recording

With Nikon's announcement of the **D90** in 2008, high-definition video recording has been an integral feature of DSLRs and, since then, has expanded into one of the most important and noteworthy technologies for a camera. DSLRs and their use in the professional and enthusiast video realms has grown incredibly quickly, due to a number of benefits that DSLRs offer over video

cameras, including the physical size of the image sensor and the ability to utilize a much larger array of lenses.



Since the introduction of video and its increased popularity, the video quality and capabilities of the DSLR have also grown substantially. Most DSLRs, from entry level to professional, are capable of recording full HD 1920 x 1080 video for vivid playback and rich editing capabilities and, additionally, the incorporation of an HDMI output on many cameras allows direct linking of the camera to an HDTV for full-quality playback. As the look of video has been refined, the audio-

recording capabilities have also been enhanced; first, through the incorporation of an external microphone jack and second, with the inclusion of a headphone jack. If recording video with a DSLR is the main purpose of its use, both of these are a definite necessity. Aside from the higher recording fidelity of an external microphone, its main benefit is the actual placement of it away from the camera to minimize the possibility of recording zooming, focusing, or other internal noise.

The other main aspect of which to make note when comparing different DSLRs' video abilities is the range of controls available for exposure control and audio control. It is crucial for a camera to possess a full range of exposure adjustments to be used for serious video applications, including aperture, shutter speed, and ISO sensitivity controls, as well as audio-level manipulation and multiple, selectable frame rates. With a greater range of controls available, more filmic effects can be achieved and, as such, the camera can be effectively used along with numerous HDSLR and support accessories for garnering the highest-quality motion pictures possible.

Accessory Support

One of the final points to take into consideration when comparing DSLRs should be the range of supported accessories available to ensure seamless use of flashes, remotes, and more. Many DSLRs feature a built-in pop-up flash in addition to the hot shoe; the hot shoe provides the obvious support for an external flash. However, some cameras' built-in flash can serve as a commander for off-camera flashes to extend its capabilities well beyond that of a stereotypical on-camera flash. Numerous entry-level, intermediate, and some professional cameras also accept **optional battery grips** to provide a more comfortable hold on the camera body, additional access to controls when shooting in vertical orientation, and extended battery life.



How to Select a DSLR

When choosing a DSLR, a large number of evaluations need to be made to pair an appropriate camera with one's skill, needs, and applicable subjects. Beginning with experience, form factor, and use, smaller, entry-level cameras are often the most practical choice as a first step into the world of DSLRs, and are incredibly versatile due to their small form and value. Even though these models employ the greatest number

of automated controls, they can still be used manually as an adept backup camera for the working professional. Professional-level cameras typically revolve around the highest performance, but can often lack many of the shooting modes, controls, and general support many photographers require for their needs. Unless familiar and confident with working manually, entry-level and intermediate cameras are often the most intuitive and friendly cameras for many photographers, and allow one's ability to progress along with his or her familiarity.

A DSLR should be evaluated based on its most general and comparable specifications, including resolution, monitor size, maximum ISO sensitivity, continuous shooting speed, and movie settings. Evaluation of each of these points and the creation of a hierarchy can lead to fitting a specific body to one's own needs. When the essential specifications have been narrowed, comparison of some of the extra features or technologies can also then be taken into consideration, such as if a camera features built-in Wi-Fi connectivity or if it supports wireless connectivity through the use of an optional accessory; if it has a range of creative scene modes that sound appealing or if a more streamlined interface is preferred; and last, but not least, the physical form of the camera: how it

feels to hold, if a battery grip will become a necessary accessory, and if it is portable enough to suit one's traveling needs. With the expansive and impressive lineup of currently available DSLRs, there is certain to be an ideal camera for all photographers, and the seeking of that specific one will aid in discovering more about one's personal preferences and how to approach selecting the proper tools to benefit the overall image making process.

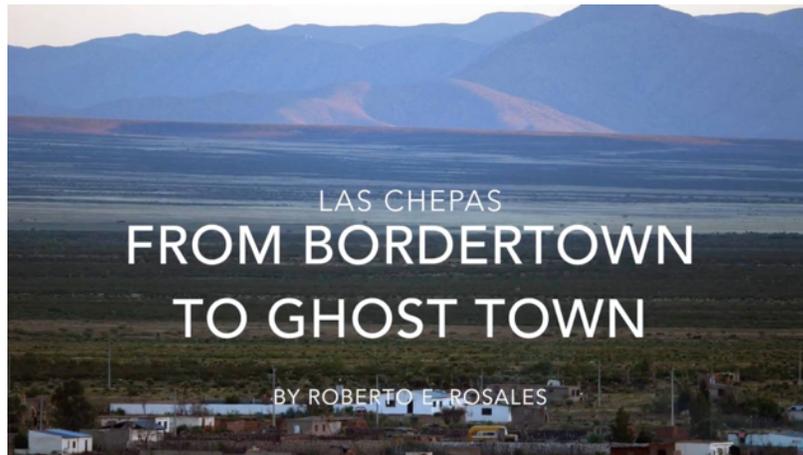
Taking a look at some samples of backpack journalism being done today:

Tracking Drug Smugglers and Immigrants with the Border Patrol

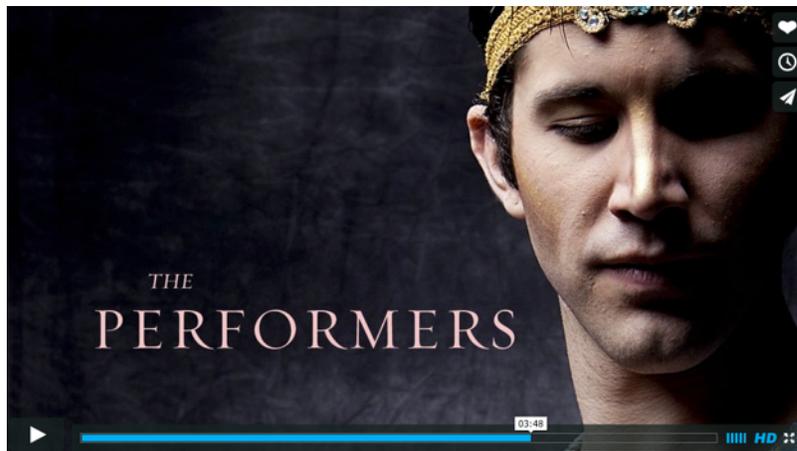


<https://vimeo.com/134421861> Roberto E. Rosales

Las Chepas From Bordertown to Ghost Town



<https://vimeo.com/120764186> by Roberto E. Rosales/photojournalist



<https://vimeo.com/groups/studentmultimedia/videos/17885499>

Bob Miller: A rough cut of my final project in multimedia storytelling at the S.I. Newhouse School of Public Communications at Syracuse University.



Cathedral of
Junk in
Austin, Texas

[https://
vimeo.com/
138157911](https://vimeo.com/138157911)
by Roberto E.
Rosales