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Compounding is considered to be the most productive device in coining new words in many languages, including English. Numerous studies have dealt with compounds in recent decades. However, in spite of a large number of works on compounds in the general language, few authors have dealt with compounds in specialized languages. We find studies on compounds in science and technology or architecture, just to mention a few. The present article focuses on compound nouns in photography, a field that has to date not been researched in this regard but is extremely rich and interesting. The aim of this study is to outline the types of noun compounds in photography and to illustrate the range of semantic relationships and morphosyntactic patterns that occur in coining new noun compounds in the photography lexis. In order to carry out the study, a corpus-based approach was followed. The data was gathered from professional photography blogs providing authentic up-to-date lexis. The results show that there is a large presence and variety of patterns of noun compounds in photography, such as noun compounds made up of noun + noun (photo album, time-lapse, shutter speed), verb + noun (catchlight, burn tool, protect filter), adjective + noun (white balance, softbox, glowing filter) and phrase compounds (depth of focus, rule of thirds, pan and tilt).

Keywords: noun compounds; English for Specific Purposes; terminology; lexis; photography

Compuestos nominales en la fotografía

La composición se considera el proceso más productivo de la formación de nuevas palabras en muchas lenguas, incluyendo el inglés. Numerosos estudios han tratado los compuestos en décadas recientes. No obstante, a pesar del gran número de trabajos sobre los compuestos en el lenguaje general, pocos autores se han ocupado de los compuestos en los lenguajes
de especialidad. Existen estudios sobre los compuestos en la ciencia y la tecnología o en la arquitectura, por poner algún ejemplo. El presente artículo se centra en los compuestos nominales en la fotografía, campo que todavía no ha sido investigado y que es muy interesante y fértil. El objetivo de este estudio es delimitar los tipos de compuestos nominales en la fotografía e ilustrar la variedad de las relaciones semánticas y los patrones morfosintácticos que se encuentran en la formación de nuevos compuestos nominales en el léxico de la fotografía. Para llevar a cabo este estudio se ha seguido la metodología basada en corpus. Los datos han sido recogidos de blogs profesionales sobre la fotografía, los cuales aportan un léxico auténtico y actual. Los resultados demuestran que existe una variedad de patrones de los compuestos nominales en la fotografía, como nombres compuestos de nombre + nombre (photo album, time-lapse, shutter speed), verbo + nombre (catchlight, burn tool, protect filter), adjetivo + nombre (white balance, softbox, glowing filter) o compuestos frasales (depth of focus, rule of thirds, pan and tilt).

Palabras clave: compuestos nominales; inglés para fines específicos; terminología; léxico; fotografía
1. Introduction

As John Algeo remarks, “most new words come in one way or another from older words,” for example by compounding, derivation, shortening or other word formation devices, and he emphasizes that creating a word out of nothing is a very rare phenomenon (2010, 224). Thus, except for a few cases—Kodak—that were arbitrary combinations of letters, the majority of new words are made from other existing words. It is believed that compounding—also called composition—is the most common way of coining new lexemes in English (Plag 2018, 131). Numerous attempts have been made to study this type of word formation process within various theoretical frameworks—descriptive (Marchand 1969; Adams 1973; Bauer 1983), generative (Aronoff 1976; Levi 1978) and semantic (Ryder 1994; Benczes 2006), among others. Compound words have been addressed in terms of translation studies (Alemán Torres 1997) and language acquisition (Nicoladis 2006; Parkinson 2015), as well as specialized languages (Soneira Beloso 2015; Fries 2017). With respect to photography, although we do find a significant number of works from different perspectives—historical (Rosenblum 1997; Newhall 2002), anthropological (Sontag 1977), artistic (Scharf 1983; Bourdieu and Whiteside 1996; DuChemin 2011) and, in particular, technical (Evening 2015; Kelby 2018)—research into the language of photography in English is limited. There are a few studies of metaphors in photography in English (Assfalg et al. 1999; Landau 2002; Mykytka 2016) and anglicisms in the language of photography in Spanish (Mykytka 2017), but to my knowledge, no work exists that deals specifically with this particular field from the perspective of word formation. The current study, therefore, aims to partially fill this gap. The main questions addressed are whether the language of photography makes use of nominal compounding and, if so, which noun compounds are present and what are the patterns that occur.

This study will thus make a contribution to both lexicology and photography. The use of photography continues to grow and its importance should not be underestimated. Indeed, it is embedded in our everyday practice. Photography lies at the crossroads between art, science and technology, all fields that have shaped it throughout history and that are advancing apace. This leads to the creation of new words and concepts, including noun compounds, a phenomenon that deserves attention.

This article is organized as follows: section 2 sets out the theoretical framework related to compounding. The objectives and methodology are presented in section 3. The results are analyzed in section 4, and section 5 explains the conclusions and suggests directions for further research.

2. Theoretical Framework

Despite the great number of definitions of compounds, the majority revolve around the idea that compounds are combinations of two or more lexemes or free forms—nouns,
adjectives, verbs or prepositions—that together form a new lexeme (Adams 1973, 30; Bauer 1983; Booij 2005, 75; Jackson and Amvela 2007, 92). A more detailed definition has been offered by Ingo Plag: “a compound is a word that consists of two elements, the first of which is either a root, a word or a phrase, the second of which is either a root or a word” (2018, 134).

Although, usually, compounds are combinations of two forms, they can form constructions of more elements. This occurs thanks to recursivity (Booij 2005, 76; Plag 2018, 133) or recursion (Bauer 2017, 43), which allows us to add to a compound an unlimited number of elements of the same linguistic nature. To explain recursivity, Plag uses the example of university teaching award committee member and suggests that compounds can be divided into binary structures: teaching award is made up of teaching and award, university teaching award is made up of university and teaching award, university teaching award committee is made up of university teaching award and committee, and so on (2018, 132). Plag notes that “at least with noun-noun compounds—new words can be repeatedly stacked on an existing compound to form a new compound” (2018, 132).

2.1. Properties of Compounds
Many authors agree that there are no criteria that would unequivocally distinguish all the compounds in the English language from other categories (Marchand 1969; Bauer 1978; Levi 1978). However, numerous studies have been carried out with the objective of outlining the properties of the various compounds, and it seems that there is unanimity on the fact that compounds may be distinguished from other categories or phrases on semantic, phonological, orthographic, morphological and syntactic grounds.

Firstly, compounds are not always a simple sum of the meanings of their constituents, and often the result is a word with an independent and obscure meaning. Secondly, there is general agreement that compounds are characterized by having the stress on the first component (Bloomfield 1933, 180; Bauer 1998, 70; Jackson and Amvela 2007, 93; Bauer 2017, 126-27). Thirdly, in order to check the compound status of a word we can focus on its orthography. Generally speaking there are three groups of compounds: those which are written together, those that are hyphenated and those written separately. Lang mentions that “a structure composed of two or more words graphically conjoined is undisputedly of compound status” (2013, 65). El-Sayed Atlam et al. affirm that the hyphen is also typical of compounds and is used to avoid ambiguities (2002, 812). Despite this, there is a general assumption that English orthography is quite erratic when dealing with compound words: sometimes the same word can be written as one word, other times it may be hyphenated or even written separately (Bauer 1998, 69; Lieber 2005, 376). Laurie Bauer cites the example of daisy wheel, daisy-wheel and daisywheel—a device used in some printers.
that resembles the daisy flower (Merriam-Webster Dictionary 2020a)—all of which are correct spellings according to the Oxford Dictionary of New Words (Knowles 1997) (Bauer 1998, 96). This does not mean that there is absolute irregularity when graphically representing compounds—short words tend to be joined while long ones tend to be separate (Bauer 1998, 69). Moreover, as Bauer points out “there is evidence of a diachronic shift from multiple orthographic words to single orthographic word” (2017, 5). Another property of compounds is the fact that the two elements cannot be separated by modifiers (Lieber 2005, 377; Jackson and Amvela 2006, 95)—e.g., *truck fast driver or *blue light green, neither of which is possible. For compounds that begin with an adjective, William O’Grady et al. point out another criterion: they cannot be preceded by an intensifier. For example, it is not possible to say *We live next to a very [greenhouse], while We live next to a very green fence is correct (1997, 135). Morphologically speaking, we should point out the inability of the first element to undergo inflection, the whole compound being one lexical unit, which means that, for example, tense is applied to the whole compound—The player [drop kick]ed the ball—as are plurality markers—The [foxhunter]s didn’t have a license (O’Grady et al. 1997, 135)—although there are exceptions, such as children’s hour or girls’ club (Lieber 2005, 376). Rochelle Lieber and Pavol Štekauer point out that the syntactic and phonological criteria are the most relevant for distinguishing compounds (2009a, 7). This study, however, does not focus on the phonological criterion since the corpus is written. Finally, Bauer considers another possible criterion for the compound status, listedness, which refers to the fact that compounds are lexicalized and listed in dictionaries (1998, 67-8)§2.1).

2.2. Classifications of Compounds
Compounds can be classified in different ways: according to semantic classes (Hatcher 1960), syntactic function (Lees 1960) or depending on the form classes that make up the compound (Marchand 1969; Bauer 1983), among others (Bauer 1983, 201). The classification used in the present article is based on the form classes of the elements of the compounds. Specifically, compounds are classified according to the patterns that occur in their creation. In this we follow Bauer, who distinguishes the following main patterns in nominal constructions: noun + noun (boyfriend), verb + noun (pick-pocket), noun + verb (sunshine), verb + verb (make-believe), adjective + noun (fast-food), particle + noun (off-islander), adverb + noun (now generation), verb + particle (drawback) and phrase compounds (son-in-law) (1983, 202-7). Other less common combinations that should be mentioned—as they have been identified in our corpus—are the so-called rhyme-motivated compounds, such as brain-drain (Bauer 1983, 212-13).

Semantic relationships between compounds are also addressed in this article. Semantically speaking, compounds can be mainly divided into endocentric, exocentric and dvandva. In an endocentric compound, one of the elements—usually the right-
hand one—is the head of the construction, so that the compound is a hyponym of its head: file cabinet denotes a type of a cabinet, sky blue makes reference to a type of blue (Lieber 2005, 378). Exocentric compounds such as redhead are not hyponyms of their grammatical head, or they appear to lack a head or to have an external head, and they are also known as bahuvrihi (O’Grady et al. 1997, 136). Finally, in dvandva compounds, also known as copulative, both elements are equally important and there is no head—washer-drier, blue-green (Bauer 1983, 30-31) (Booij 2005, 80).

3. Objectives and Methodology

The purpose of this study is to shed light on the compound nouns used in the language of photography. More specifically, the aim is to identify the compound nouns that exist in this particular field and classify them according to the form of their constituents—verbs, nouns, adjectives or adverbs—following a corpus-based methodology. As pointed out by Douglas Biber et al., the best way of studying how language is used in naturally occurring texts and of investigating how users exploit the resources of the language is a corpus, rather than investigating what is theoretically possible (1998, 1). The data used in this study was gathered from the Internet. Among the variety of genres available, photography blogs were chosen as the source material because they provide authentic uses of words, they are up-to-date, free and easily accessible. As Greg Myers observes, “blogs make for appealing projects […] the subject matter can be interesting, the styles are lively and personal, and the data couldn’t be easier to collect (no taping and transcription)” (2010, 160). As a result, a growing number of researchers are turning to this type of source (e.g., Argüelles et al. 2009; Wong 2017a; Arndt and Woore 2018). Six blogs were selected for the study, namely Beyond Megapixels (BM; Joyce 2007), Photofocus (PF; Harrington 2008), Roesch Photography (RP; Roesch), Scott Kelby Photoshop Insider (SK; Kelby 2007), Strobist (ST; Hobby 2006) and The Urban Exploration Photography Blog (UX; Roesch). The corpus was designed taking into account three criteria: accessibility, contemporariness and representativeness. To make the corpus representative, Lynne Bowker and Jennifer Pearson’s guidelines for designing a special purpose corpus were followed—size of the corpus, number of texts, subject, medium, text type, authors, language and publication date (2002, 45-54). The corpus used in the study contains about 900,000 words and is composed of 1,644 blog posts on photography, written between 2006 and 2017 by professional photographers who are native speakers of American English. After the texts were identified, their contents were manually downloaded into text files. Each blog and each post were tagged with their own reference, which is throughout this article to indicate the source of the items. The tags are formed with the initials of the blog and the date of publication—year, month, day—of the post on the Internet. For instance, the reference BM_090710 means that the item was extracted from a post published on the Beyond Megapixels blog on
July 10, 2009. Once the corpus was compiled, the photography terms consisting of compound nouns were manually extracted.

To identify photography terms, two factors were taken into account, frequency and meaning. As regards frequency, the corpus-comparison approach proposed by Cucu Sutarsyah et al. (1994) and used by Teresa Mihwa Chung (2003a, 2003b) establishes that technical terms occur more frequently in the discipline they belong to and are scarce in general language. Accordingly, in this study the British National Corpus (BNC) was used for comparison and Sketch Engine (Kilgarriff and Rychlý 2003) in order to find out the frequency of the terms. The Technicality Analysis Model (TAM) proposed by Althea Ying Ho Ha and Ken Hyland and based on frequency and meaning was also applied. Different tools were used to check the specialized meaning, mainly the Oxford English Dictionary Online (2019) and specialized dictionaries on photography, such as the Illustrated Dictionary of Photography (Lynch-Johnt and Perkins 2008) and the Thames & Hudson Dictionary of Photography (Herschdorfer 2015). Other dictionaries were also consulted occasionally. 1,144 photography terms were extracted and then the photography compound nouns were manually selected taking into account the properties discussed in section 2.1. This study is primarily taxonomic in nature and aims to identify the variety of compounds found in the lexis of photography.

4. Noun Compounds in Photography

496 noun compounds were identified (see appendix 1). Figure 1 illustrates the distribution of the patterns—noun + noun, adjective + noun, verb + noun, verb + particle, verb + verb, phrase compounds and other types. The analysis shows that the most common pattern of nominal compounding in the language of photography is noun + noun—263 items, 53%—with adjective + noun in second place—185 items, 37.3%. Other groups were less common: verb + noun—10 items, 2%—verb + particle—4 items, 0.8%—verb + verb—1 item, 0.2%—and phrase compounds—12 items, 2.4%. The final group comprises other items that could be considered noun compounds—21 items, 4.2%—such as rhyme-motivated compounds, terms composed of letters and nouns or those that include numbers.
4.1. Classification

4.1.1. Noun + Noun

This is the largest group of compounds in English (Algeo 1999) and children start to produce them the earliest (Clark 1981). It is also the largest subgroup of noun compounds in the photography lexis—263 items, 53% (see figure 1). The vast majority of compounds in this group are endocentric—213 items out of 263, 81%—that is, they are hyponyms of their heads. Thus, reflex camera and pocket camera are types of cameras; portrait lens and kit lens are types of lenses; star filter and cool filter are types of filter, and so on. Some further examples are scene mode, box camera, ring flash, remote release, spot meter, plate camera, sponge tool, cross light and zoom lens. In some endocentric compounds the first element is a proper noun, including Ken Burns effect, Eberhard effect, Sabattier effect, Orton effect, Foveon sensor, Bayer filter and Rembrandt lighting, all of which describe entities named after their inventor. For instance, Ken Burns effect refers to the type of zooming used in video production from still imagery, a technique widely used by US documentarian Ken Burns; Bayer filter was named after Bryce Bayer; Rembrandt lighting describes the type of lighting used by Rembrandt in his portraits. As Bauer points out, this compounding process has been extremely productive in English in recent years (1983, 204). In the corpus used in this study, however, only 7 items of this type were found, which means that the majority of noun compounds in the noun + noun category are composed of common nouns—256 items.
The next subgroup is formed by exocentric compounds—49 items out of 263, 19%. Examples include beauty dish, barn doors and flash gun—all important lighting devices in photography—and camera plate, ball head, lens barrel and camera body—parts of a camera or one of its accessories. Exocentric compounds such as photo opportunity, fisheye, image bank and image library merit particular mention. Photo opportunity is not simply an opportunity to take a good picture but in fact has its own specific meaning: “a situation in which a famous person (such as a politician) can be photographed while doing something good or impressive that is meant to be seen in a favorable way by the public” (Merriam-Webster Dictionary 2020b). Fisheye is a type of lens that simulates the vision of a fish and due to its short focal length achieves a wide angle of view—between 100 and 180 degrees. Image bank and image library refer to collections of images stored electronically. It should be noted that often exocentric compounds are metaphoric in nature—thus, image bank and image library present the idea of gathering images together, a feature of both libraries and banks. Similarly, beauty dish, a large circular dish-shaped light diffuser, apparently owes its name to its similarity with a dish or a bowl.

The final type of noun compounds in this taxonomy photography are dvandva compounds, which are not very productive according to Bauer (1983, 203). One example was found in the corpus used in this study of photography lexis—shutter curtain, a device inside a camera that regulates the amount of light reaching the sensor.

4.1.2. Verb + Noun

The next group of noun compounds consists of terms combining a verb and a noun. This is a rather small group, as can be seen in figure 1—10 items, 2% of the total. There are two patterns distinguishable based on functional criteria. The first is where the noun is the direct object of the verb, such as catchlight and touch screen—the former makes reference to the reflection of the light source in the eye of the subject as if the light is being caught, while the latter refers to the screen that has to be touched in order to use the device. The second pattern is where the noun is the subject of the verb. Thus, burn tool, dodge tool, smudge tool and zoom tool are tools that, respectively, burn, dodge, smudge or zoom the image; a protect filter stops the lens being scratched; zoom ring refers to the ring on the lens that zooms; and fill light and fill flash make reference to the light and the flash that fill the photograph giving more light and detail to dark or shadowed areas, thereby reducing contrast.

4.1.3 Verb + Verb

Bauer mentions that this pattern is extremely rare (1983, 205). In line with this, in the photography corpus 1 item—tilt-shift—was identified:

(1) […] in the case of architectural photography […] a tilt-shift is useful (PF_170211)
This may refer to a type of lens, a type of photography or a technique in which a photograph of a real size object or place gives the optical illusion of being a photograph of a miniature scale model.

4.1.4. Adjective + Noun
Noun compounds containing adjectives are the second most frequent group in the photography corpus used in this study—185 items, 37.3% of the total (see figure 1). The range of adjectives that occur in this type of construction is not especially varied, although several patterns can be identified. First, the main subgroup—91 items—includes pure adjectives, as in low light, wide angle, red eye, full frame, high-key, hot shoe, slow motion, white balance, highlights. Secondly, 56 items contain denominal adjectives—environmental portrait, architectural photography, digital camera—and 34 deverbal adjectives formed with a gerund—advancing color, glowing filter, leading lines, healing brush—a participle—fixed lens, colored filter, detached flash, graduated filter—and other suffixes—disposable camera, subtractive color, reflective umbrella. Finally, combinations of deadverbal adjectives—3 items—and deadjectival adjectives—1 item—with nouns were located as well—in-camera meter, on-camera flash, off-camera lighting and telephoto lens, respectively.

4.1.5. Verb + Particle
The examples included in this subgroup are nominalizations of phrasal verbs and whether they are compounds at all could be questioned. However, the corpus used in this study yielded 4 instances of this type—0.8% of the total—which makes it worth mentioning:

(2) The diagram shows the setup of the lights (PF_150509)

(3) How to make a cut-out in Photoshop (RP_121005)

(4) It takes almost three seconds from startup to first exposure (UX_151126)

(5) It was for a live “shootout” in front of a crowd (ST_060300)

4.1.6. Phrase Compounds
These are constructions where an entire phrase is involved in the formation of a new word. Bauer mentions that the extent to which these formations should be considered compounds is debatable, but he still distinguishes different types within this group (1983, 206-7). In the photography corpus used in this study, endocentric, exocentric and dvandva phrase compounds of this type can be found. Among the endocentric phrase compounds, the following have initial head elements: rule of thirds, depth of field,
depth of focus, field of view or point of focus. Less common and less productive is the type where the head is the final element:

(6) [...] my fantastic 50mm lens with the great depth of field is my new go-to-lens (BM_090413)

(7) You can do wonders with even a simple click and go camera (BM_100105)

Dvandva phrase compounds, as Bauer explains, differ from true dvandva compounds in that they include the word and and seem more like syntactic phrases (1983, 207). An example in photography is pan and tilt, which refers to “a tripod attachment that provides independent movement of the camera in both horizontal and vertical planes, giving the photographer greater flexibility” (Brain 2012):

(8) While you can lock or unlock the pan and tilt, the fluid head also features “drag” which controls how much friction there is when panning or tilting (PF_160720)

Only two exocentric phrase compounds were located, splash of color and dragging the shutter (also called shutter drag). Both refer to photographic techniques—the former is used to isolate a single color in an image and desaturate the rest of the colors, while the latter consists in using a longer shutter speed to capture the motion of moving objects.

4.1.7. Other
This group includes other cases of noun compounds—21 items; 4.2% of the total (see figure 1). There are instances of rhyme-motivated compounds (Bauer 1983, 212) such as nifty-fifty and fantastic plastic—2 items out of 21; 9%—, both of which make reference to the 50mm F/1.8 lens, a relatively good quality lens mainly made of plastic and sold at an affordable price. Close-up, a noun compound made up of an adjective + particle—1 item, 5%—, is also included in this group. Apart from being the head of a noun phrase, it can also modify a noun—close-up photography, close-up shot—or as verb—to shoot close-up.

Compounds formed through other word-formation mechanisms are also included here—6 items; 29%—, such as abbreviation—LCD screen, c-stand, x-processing—acronymy—lomo camera < Russ. Leningradskoye Optiko-Mekhanicheskoye Ob'yedinenie “Leningrad Optical Mechanical Association” + camera—blending—bitmap < binary digit + map—acronymy and borrowing (AI Servo < Artificial Intelligence + Lat. servo).

As has already been mentioned, compounds are usually defined as combinations of lexemes. The cases that follow, however, present combinations of letters or numbers with lexemes. Thus, it is not clear to what extent these terms should be considered compounds. Following Soneira Beloso (2015, 132), combinations of letters and
nouns are included in this study and, given their interest in the field of photography, combinations of numbers and nouns are also taken into account.

There are several terms composed of letters and nouns—10 items, 48%—, such as L-Plate, S-Curve, T-Marker, A-Clamp on the one hand, and D-lighting and D-movie on the other. In the first four examples, the letters make reference to shape—for instance, L-Plate is an accessory shaped like an L fastened to the camera body and used to shift between a horizontal and a vertical orientation. In the last two examples, the origin is not clear.

Other special cases are those formed using numbers—2 items, 9%—, as with sunny 16 rule and moony 11 rule. The latter was probably formed by analogy from the former given their relative frequency of use. In the corpus under study, sunny 16 rule— together with its variant sunny f16 rule—occurs 15 times, while moony 11 rule is used only 3 times. Both refer to formulas used to estimate the appropriate exposure in broad daylight, in the first case, and in moonlight, in the second.

4.2. Discussion of Results

This section briefly addresses the properties of noun compounds in photography lexis as observed in the corpus under study, focusing on meaning, orthography, recursivity, and morphological and syntactic properties.

Noun compounds in the photography corpus under study—417 items, 84.1%—follow the general tendency for endocentric compounds to be more common than exocentric ones (Bauer 2009). This might be explained by the fact that a large proportion of noun compounds in photography arise from a series of keywords that are extremely common in this field, such as light (9), camera (10), filter (11) and lens (12). These and many other examples (see appendix 1) are endocentric compounds that are hyponyms of their heads.

(9) accent light, incident light, natural light, side light, specular light, sunlight, moonlight, available light, ambient light, background light, fill light, backlight, direct light, directional light, main light, key light, cross light, front light

(10) film camera, pinhole camera, plate camera, pocket camera, single-lens camera, twin-lens camera, interchangeable-lens camera, toy camera, video camera, view camera, disposable camera, compact camera, digital camera, hybrid camera, instant camera, reflex camera, mirrorless camera, still camera, point-and-shoot camera

(11) colored filter, diffusion filter, Dual Image filter, polarizing filter, sepia filter, soft focus filter, soft-step filter, Split Field filter, star filter, cool filter, warm filter, threaded filter, Bayer filter, neutral density filter, gradient filter

(12) zoom lens, telephoto lens, kit lens, prime lens, wide-angle lens, long lens, pancake lens
Even though the meaning of the endocentric compounds found in the corpus can be deduced in some cases from the meanings of the elements separately, in the majority of cases the meaning may be (partly) opaque to lay people. For example, most people may be familiar with the terms reflex camera or screenshot because of their popular use, and it is also possible to guess that portrait lens is a lens used for taking portraits, but the fact that a reflex camera is so called because it is equipped with a pentamirror or pentaprism that flips the image that passes through the lens so that it can be viewed the right way up on the screen or in the viewfinder is perhaps less generally known.

With regard to orthography, the majority of examples found in the corpus can be grouped according to whether they are written together, hyphenated or written separately. Several examples belong to the first group—background, catchlight, viewfinder—and to the second—tilt-shift, low-key, D-lighting. Hyphenation is particularly popular in combinations of letters + nouns, as in c-stand, L-Plate, S-curve—8 items out of 11. The vast majority of noun compounds in the photography corpus under study, however, are written separately—color saturation, landscape photography, negative space. On the other hand, the orthography of photography noun compounds can vary depending on the preferences of the authors, as can be seen in (13) and (14):

(13) (a) Read a book on close-up photography (PF_160824)
(b) Zoom in tight and step up close, and it does some pretty good closeup work (PF_150617)
(c) Then zoom in and take close ups of some fun elements (BM_081224)

(14) (a) […] knowledge of shooting time-lapse is the same in shooting star trails (PF_150613)
(b) How to capture timelapses using your digital SLR (PF_150405)
(c) The HERO 4 will record a time lapse (PF_150206)

The analysis of the selected corpus shows that recursivity—the property of compounds to combine and form longer compounds—is widely used in the language of photography. Figure 2 shows a seven-member compound from the corpus which can be divided into binary structures that combine together to form larger compounds. The first constituent, reflex camera, is made up of reflex and camera. The next constituent, single-lens reflex camera—there are two types of cameras, single-lens and twin-lens cameras, according to the number of lenses that can be attached—is made up of single-lens and reflex camera. The third constituent, digital single lens reflex camera, is made up of digital and single lens reflex camera, and so on.
Figure 2. Example of recursivity in the photography lexis

Full frame digital single-lens reflex camera can also be analyzed using bracketing (15a). Other examples of recursivity found in the corpus are also listed in (15), including two instances with compound phrases—(15d) and (15e).

(15) (a) (full frame (digital (single lens (reflex camera))))
    (b) (mirrorless (compact (interchangeable-lens camera)))
    (c) (medium format (color (transparency film)))
    (d) (pocket (digital (point-and-shoot camera)))
    (e) (black-and-white (film photography))

Morphologically speaking, compounds function as one lexical unit, with the head of the compound undergoing inflection, as can be seen in (16) and (17). The latter is particularly interesting due to the regular pluralization of the irregular head, a particular feature of exocentric compounds according to O’Grady et al. (1997, 136).

(16) You will need long exposure times to record the brilliant fireworks (PF_150407)

(17) Still lifes are generally shot with plain backgrounds (BM_090515)

As is to be expected, the syntactic criteria that have been mentioned for distinguishing compounds from phrases—inseparability and the inability to modify the first element of the compound—can also be applied to compounds found in the corpus of photography language under study. Thus, no other element can be inserted between the two constituents of reflex camera or purple fringing—*reflex nice camera or *purple ugly fringing are not possible. Compounds that begin with an adjective cannot be preceded by an intensifier—*very softbox, *very white balance, *very high-key are not possible either.
5. Conclusions
The present study intended to shed light on the noun compounds used in the language of photography, a field that had not previously been researched. The research questions posed at the start of this article have been answered. Firstly, it has been shown that the lexis of photography does make ample use of nominal compounding, with 496 items—43.3%—being identified out of 1,144 photography terms found in the selected corpus of about 900,000 words. Secondly, a variety of noun compounds in this particular corpus has been identified, and they have been classified and explained in detail. Specifically, the combinations noun + noun—263 items, 53%—adjective + noun—185 items, 37.3%—verb + noun—10 items, 2%—verb + verb—1 items, 0.2%—verb + particle—4 items, 0.8%—phrase compounds—12 items, 2.4%—and others—21 items, 4.2%—have been identified.

On this basis, it might be postulated that the most common pattern used to create compound nouns in photography is the noun + noun combination, followed by adjective + noun, while the least common patterns are those including verbs—verb + noun, verb + verb and verb + particle—and phrase compounds. Other patterns—compound nouns that include numbers, compounds made up of nouns and letters or rhyme-motivated compound nouns—are also found in the corpus. Even though in some cases their status as compounds is questionable, they have been included in the study for the reasons mentioned above.

The results are based on a limited sample that may not fully capture the variety of nominal compounding in the language of photography. This could be remedied by conducting analyses of larger corpora and by considering other genres apart from blogs, such as photography magazines, forums or manuals. Researchers are encouraged to continue studying the lexis of photography, which still has much to offer.1

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Appendix. Noun Compounds in Photography

A. Noun + Noun

| Compound                           | Compound                   |
|------------------------------------|----------------------------|
| accent light lens mount            | lens mount lens mount      |
| adjustment brush lens shutter      | lens shutter               |
| amateur photographer lensbaby      | aperture priority lenspen  |
| aperture priority light box        | aspect ratio light box     |
| background light light meter       | background photography light meter |
| ball head light modifier light source | light modifier light source |
| barn doors light stand             | light box                  |
| barrel distortion light tent       | light stand                |
| battery grip light trail           | light stand                |
| Bayer filter lightpainting         | light trail                |
| beauty dish Lightroom              | bit depth loop lighting    |
| bitmap image memory card           | bitmap image memory card   |
| bitmap mode mirror lockup          | bitmap mode mirror lockup  |
| body cap model release             | body cap model release     |
| bottle cap tripod moonlight        | bottle cap tripod moonlight |
| box camera motion blur             | box camera motion blur     |
| brick wall technique movie mode    | brick wall technique movie mode |
| bridge camera nature photography   | bridge camera nature photography |
| brush tool [neutral density] filter| bulb tool night mode       |
| bulb mode                         | bulb mode                 |
burst mode
burst rate
butterfly lighting
cable release
camera angle
camera body
camera case
camera film
camera lens
camera plate
camera profile
camera roll
camera shake
card reader
center spot filter
child photography
close stamp
cloudscape photography
color balance
color cast
color contrast
color correction
color fatigue
color mapping
color photograph
color photography
color saturation
color space
color temperature
color [transparency film]
color wheel
[compact flash] card
concert photographer
night photography
noise reduction
Orton effect
[paint bucket] tool
pancake lens
pano stitching
parallax error
photo album
photo book
photo booth
photo gallery
photo opportunity
photo release
photo session
photoshoot
photo stream
photo studio
photography industry
photojournalism
photojournalist
photomontage
Photoshop
photosite
photowalk
pincushion distortion
pinhole camera
pistol grip head
pixel density
plate camera
pocket camera
portrait lens
portrait mode
portrait orientation
concert photography
control ring
[crime scene] photography
crop factor
cross light
daylight
diffusion filter
diffusion panel
[dual image] filter
Eberhard effect
diffusion panel
edge fringe
eraser tool
event photography
exposure bracketing
exposure compensation
exposure lock
exposure meter
exposure mode
exposure time
extension tube
eyecup
eyedropper tool
eyepiece
face detection
face recognition
fashion lighting
fashion photographer
fashion photography
file format
film camera
film photography
filter holder
[fine art] photography
portrait photographer
portrait photography
power zoom
print size
product photography
program mode
[rainbow spot] filter
rangefinder
red-eye removal
Rembrandt lighting
ring flash
Sabattier effect
sandbag
scene mode
school photography
selection tool
shutter button
shutter curtain
shutter priority
shutter release
shutter setting
shutter speed
shutterbug
side light
side lighting
[single-lens] camera
slide film
slideshow
snapshot
snow mode
soft focus filter
[soft focus] [lens diffuser]
| Noun Compound | Definition |
|---------------|------------|
| fisheye sound trigger | |
| flash card speedlight | |
| flash cube speedlite | |
| flash diffuser [split field] filter | |
| flash duration sponge tool | |
| [flash exposure] control sports photography | |
| [flash exposure] lock spot meter | |
| flash gun spot metering | |
| flash head [spot metering] mode | |
| flash meter star filter | |
| flower photography [still life] photography | |
| focus lock street photography | |
| focus ring sunlight | |
| focus stacking sync speed | |
| food photographer thumbnail | |
| food photography time exposure | |
| Foveon sensor time-lapse | |
| [full length] shot [time-lapse] photography | |
| gimbal head tone-mapping | |
| gradient filter toolbar | |
| gridspot toolbox | |
| halftone toy camera | |
| honeycomb grid travel photography | |
| [hot shoe] adapter tripod head | |
| image area tripod mount | |
| image bank [twin-lens] camera | |
| image circle vantage point | |
| image format vibration reduction | |
| image library video camera | |
| image processor view camera | |
| image size viewfinder | |
| image stabilization viewpoint | |
| inverse square law vintage camera | |
| B. Verb + Noun | C. Verb + Verb | D. Adjective + Noun |
|---------------|---------------|-------------------|
| burn tool     | tilt-shift    | active D-lighting |
| catchlight    |               | advancing color   |
| dodge tool    |               | aerial photography|
| fill flash    |               | ambient light      |
| fill light    |               | analog photography|
|               |               | anti-aliasing filter|
|               |               | architectural photography|
|               |               | artificial light   |
|               |               | aspherical lens    |
|               |               | available light    |
|               |               | background         |

Ken Burns effect | war photographer
kit lens | watermark
landscape mode | wavelength
landscape orientation | wildlife photography
landscape photography | workflow
lens aberration | zebra-mode
lens barrel | zone system
lens cap | zoom blur
lens flare | zoom lens
lens hood

burn tool | protect filter
catchlight | smudge tool
dodge tool | touch screen
fill flash | zoom ring
fill light | zoom tool

active D-lighting | key light
advancing color | latent image
aerial photography | leading lines
ambient light | live view
analog photography | long lens
anti-aliasing filter | low light
architectural photography | low light photography
artificial light | low-key
aspherical lens | magic hour
available light | main light
background | manual focus
backlight  manual mode
backlighting  medium mode
biconvex lens  mid-ground
bright spot  midpoint
broad light  midtone
built-in flash  minimalist photography
built-in meter  minimum focus distance
candid photography  mirrorless camera
celestial photography  modeling light
chromatic aberration  multiple exposure
close-up filter  multiple flash
close-up lens  natural light
close-up photography  negative fill
cold shoe  negative film
collapsible reflector  negative space
colored filter  off-camera lighting
combined zoom  on-camera flash
commercial photography  optical density
compact camera  optical slave
content-aware fill  optical zoom
continuous autofocus  panoramic image
converging lines  panoramic photography
cool filter  paramount lighting
cropped sensor  pin-point light
cut-out photography  plastic camera
darkroom  plastic lens
decisive moment  polarizing filter
detached flash  pop-up flash
digital camera  prime lens
digital noise  purple fringing
digital photograph  radial tool
digital photography  raw format
digital zoom  rechargeable battery
| Term                              | Definition                      |
|----------------------------------|---------------------------------|
| direct light                     | red eye                         |
| direct lighting                  | reflected light                 |
| directional light                | reflective umbrella             |
| disposable camera                | reflex camera                   |
| double exposure                  | remote shooting                 |
| Dutch tilt                       | remote shutter release          |
| dynamic range                    | reversal film                   |
| effective focal length           | reversing ring                  |
| electronic flash                 | sepia filter                    |
| environmental portrait           | silent mode                     |
| external flash                   | slow motion                     |
| facial recognition               | soft focus                      |
| fast lens                        | soft light                      |
| fill-in flash                    | soft-proofing                   |
| fine grain                       | soft-step filter                |
| fixed lens                       | softbox                         |
| fluid head                       | special effect                  |
| focal distance                   | specular highlight              |
| focal length                     | specular light                  |
| focal plane                      | split lighting                  |
| focal point                      | step-up ring                    |
| focal range                      | still camera                    |
| freelensing                      | still life                      |
| front light                      | still photographer              |
| front lighting                   | still photography               |
| full frame                       | subtractive color               |
| Gaussian blur                    | telephoto lens                  |
| glowing filter                   | threaded filter                 |
| golden mean                      | tonal range                     |
| graduated filter                 | true colors                     |
| grey balance                     | twin flash                      |
| greyscale                         | underwater photography          |
| hard light                       | unsharp mask                    |
healing brush
high contrast
high dynamic range
high-key
highlights
hot shoe
hybrid camera
hyperfocal distance
in-camera meter
incident light
indexed color
indirect lighting
instant camera
instant film
intellectual property
{interchangeable-lens} camera

urban photographer
vanishing point
vertical orientation
viewing distance
viewing filter
warm color
warm filter
wedding photography
white balance
white light
wide angle
wide aperture
wide-angle lens
working aperture
working distance

E. Verb + Particle
cut-out
setup

shootout
startup

F. Compound phrases
click and go camera
black-and-white photography
depth of field
depth of focus
dragging the shutter
field of view
go-to-lens
pan and tilt
point of focus
point-and-shoot camera
rule of thirds
splash of color

G. Other
AI Servo
B light
bitmap

L-Plate
LCD screen
lomo camera
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