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Color names for dyed cloth: circulation of cultural concepts through textile trade

The question of color, in the humanities and human sciences, mainly concerns the question of color names. Basically, this question challenges two opposite camps: a universalist camp that contends that the perception of colors is the same for all, and a relativist (or culturalist) camp which argues that the perception of color depends on language and culture.

The universalist conception of color originates from *Basic Color Terms*, a 1969 study conducted by anthropologist Brent Berlin and linguist Paul Kay. Berlin and Kay argue that color terms emerged in the same sequence in all human languages: black and white appear first, then red, then green and yellow or yellow and green as the third and fourth, blue as the fifth, brown as the sixth, and purple, pink, orange, and grey as the seventh.

This universalist theory contested the Sapir-Whorf hypothesis of linguistic relativity, which postulated that cognitive representations such as colors depend on the linguistic categories of a given language (Whorf 1956). Although Whorfianism is now rejected by most linguists, some, such as David Kastan, still defend a relativist conception of color. In his 2018 book *On Color*, Kastan distinguishes the *sensation* of color, which is universal (given that biologically, the human eye has not significantly evolved over the last millennia), and the *perception* of color, which is relative due to language and culture (in that the visible spectrum is the same for all but the way to divide it in colors, i.e. the way in which one names and defines colors on the chromatic continuum, is purely arbitrary). Although Berlin and Kay's thesis and methodology have been duly criticized, some linguists remains attached to the universalist conception of color. Brian Reilly, in *Getting the Blues* (2019), challenges David Kastan's thesis by arguing that the *perception* of color (the way in which the language divide the chromatic spectrum) is itself constrained since it is determined by universal cognitive processes in which "there are transcultural truths of color perceptions".

Within the interdisciplinary debate on color names, historians – for whom the idea of "universality" is dubious by nature – are mainly in the relativist camp. The French medievalist Michel Pastoureau, for instance, postulates that in terms of color "everything is cultural, closely cultural" and that there "is no transcultural truth of color, as some books based on a poorly

digested neurobiological knowledge or based on a cheap psychology would have us believe" (2004). Without falling into the stubborn anti-universalism "of principle" like Pastoureau – i.e. without denying that linguistics and cognitive sciences are relevant for this subject – historians, as far as their respective fields of analyses are concerned, should be content with the idea that color is firstly a linguistic, cultural, and thus, historical construction.

However, historians of ancient periods must make the observation that the color names often refer to the raw materials from which they were obtained. From a historical and mostly medieval perspective, color names should not be considered without regard to the natural substances used by craftsmen to obtain them. The nature of colorings and pigments, and the social-cultural perception of color cannot be separated as they form two aspects of the same question. It is thus necessary to emancipate the debate on color from the purely culturalist approach imposed by historians of mentalities and some linguists for many decades.

Color is merely cultural, it is also matter. In my perspective, it is inconsequential whether the perception of color is arbitrary or cognitively constrained (put differently, I do not pretend to solve the debate on the universality or the relativity of color) but it is critical to consider that color has a material dimension. For this reason, the paradigm of conceiving color in both its' cultural and material dimension challenges the traditional "nature-culture divide", which is now debated in anthropology (Descola 2013); due to the prevalent anti-materialist school of thought in the Western world, this "nature-culture divide" still remains the norm in History and in many fields of knowledge.

OBSERVATIONS AND HYPOTHESES

My study is based on three observations which will be considered as the axioms of the research.

1. Color names as never self-evident. Not all languages have the same number of color names, nor agree on what constitute a 'color' or 'shade'. For example, it is well known that in traditional Japanese there is a single color name (*ao*) to describe the sections of the visible spectrum that English divides into *green* and *blue*, while Russian has two color names (*siniy* and *goluboy*) to describe the single term used in English as *blue*. Within the same language, color names are not self-evident either. For instance,

common English has many monolexemic terms to describe shades of blue (*azure*, *celeste*, *indigo*, *turquoise*, etc.) or shades of red (*scarlet*, *carmine*, *crimson*, *vermilion*, etc.). Yet there are few monolexemic terms to describe shades of green or yellow, for which compound terms (*artichoke green*, *canary yellow*, etc.) are often used. If color names are not self-evident, it means they are linguistic, cultural and historical constructions. But before thinking about how they were constructed, it must be noted that color names are the same in Western European languages. In English, *green* matches perfectly with *grün* in German, *vert* in French, *verde* in Italian and in Spanish, etc. Similar observations can be made with specific color names, for example the trio of *scarlet – carmine – crimson*, which in English, aligns with the French *écarlate – carmin – cramoisi*, the Italian *scarlatto – carminio – cremisi*, and the Spanish *escarlata – carmín – carmesí*. Of course, counterexamples exist. There are indeed names that belong to only one language such as the French *roux*, distinguished from *rouge*, which English translates to *red*, and Italian to *rosso*, etc. However, Western European languages generally share the same terminology of color names. This finding is not simply a matter of etymology; *green* and *grün* translate to *vert* and *verde*, even if they come from different lemmas and linguistic families. The Western Europe stock of color names is also the same in the Basque linguistic isolate – the only Pre-Indo-European language still spoken in Western Europe – which proves that the question of color names is decidedly more historical and cultural rather than linguistic and etymological. Color names are thus a civilizational fact: their appearance and their fixation within language is part of a transboundary and crosslinguistic shared history.

2. Most color names used in current Western European languages have medieval origins. There are certainly many exception, such as *vert* and *verde* stemming directly from the ancient Latin *viridis*. However, none of the Latin names of *flavus*, *croceus*, *luteus*, etc. originated the current word for "yellow" in any Roman language (*jaune* in French, *giallo* in Italian, *amarillo* in Spanish, etc.). Similarly, neither of the two Italian words *blu* and *azzurro*, nor the French *bleu* and its literary synonym *azur* or the Spanish *azul* come from the ancient Latin *caeruleus*. Such observations do not concern the etymology of the color names, but their adoption and generalization within language. For instance, the French *bleu* derives from an ancient Proto-Indo-European term, but became the main way of designating "blue" among the inhabitants of Gaul only in the Middle Ages. The

Italian *azzurro* derives from an ancient Persian lemma for lapis lazuli, but became the most common way to designate "blue" in Italy only in the medieval period. Furthermore, some color names like *scarlet* and *crimson*, and their equivalents in other Western European languages, were used to designate colors for the first time during the Middle Ages. In English, it is also during the late medieval period that the word *black* supplied the word *swart* to designate the darkest color.

3. Most color names refer to the raw material from which they were obtained. More precisely, they often refer to dye colorings than pictorial pigments. The difference between 'coloring' and 'pigment' is a matter of solubility, but by convention, I call 'colorings' the raw materials for dyeing and 'pigments' those of painting. For instance, *indigo* is the color taken from the homonymous coloring, *vermilion* as red is taken from the *vermiculus* ("little worm" in Latin, that is cochineal dyes), and *black*, whose etymology is controversial, seemingly derives from the medieval Flemish word *blec* for "alder bark", which was used in the late Middle Ages to produce black cloth (Cardon 2003). Such examples are endless, especially if we consider color names that disappeared from use, like the ancient French *glaiolet* (yellow from *glaïeul*, i.e. sword lily) or the ancient Italian *zafflore* (pink from *zaffiore*, i.e. safflower). Here again, there exist some exceptions, as there are color names which derive from pigments rather than colorings (like *azur*, *azzurro*), but they are few in number. Furthermore, there are other color names that do not refer to raw materials but emerged in the technical jargon of medieval textile industry, such as *scarlet*, which derives from the Flemish word *schaerlaken* ("shorn cloth") and only became a color names in the second reiteration of the word (Munro 1983). Finally, we must also consider that in these observation, some color names only appeared as adjectives used primarily to characterized cloth, like the Italian *giallo* – a loan from the French *jaune* (*jaulne*) – which was often attached to clothing in its Italian occurrences before 1300.

Based on these observations, we can hypothesize that medieval dyeing influenced the definition and fixation in the language of the terminology of color names of Western European languages. Indeed, sources of medieval economic history point out that color names given to dyed cloth always referred to specific colorings or dyeing processes. Color names were never attributed in

an arbitrary way, i.e. according to the preference of the observers, but because they were technical indications. For instance, in the Florentine textile industry, the color name *scarlatto* meant that the cloth had been dyed with kermes (*Kermes vermilio Planchon*), while the name *cremisi* meant it had been dyed with Armenian cochineal (*Porphyrophora hamelli Brandt.*) or with Polish cochineal (*Porphyrophora polonica L.*). When Florentine merchants ordered red cloth from clothmakers or dyers, they asked for *scarlet* or *crimson* but never for *red*, as *red* was not a technical term in their professional vernacular. They were not *rosso* Florentine cloth, but *scarlatto* (dyed with kermes), *scarlatino* (dyed with half kermes and madder), *sanguigno* (dyed with madder), *cremisi* (dyed with *Porphyrophora spp.*), etc. The color names of dyed cloth thus formed a standardized system of technical and commercial indications. And this system was shared between different places. For example, a Florentine and a Venetian dyeing handbooks from the 15th century both presented the colors obtained from the woad vat (that is, shades of blue dyed with *Isatis tinctoria L.*) in the same order, from the darkest to the lightest: *perso-perso*, *azzurro-azzurrino*, *cilestrino-zelestro*, *sbiadato-sbiavado*, *turchino-turchin* and *allazzato-alazado* (BRF ms. 2580; Rebora 1970). Florentine and Venetian dyers, clothmakers and merchants used and agreed on the same jargon to distinguished what was *azur* and what was *turquoise*, since these colors did non depend on language or culture, but on the quantity of woad colorings present within the cloth. If we consider sources from Northern France and Flanders, we can now observed that a *pers* blue was always darker than a *azur* blue and that a *escarlate*, from the end of the 13th century and thereafter, was always dyed entirely with kermes (De Poerck 1951). John Munro had already demonstrated that the name *scarlet* – after it was derived from its etymological meaning to the designated color – referred to cloth entirely dyed with kermes in all Western European languages (Munro 1983). These few examples point out that different European textile industries shared in part the same standardized system of color names for dyed cloth. The reason for this unification of the lexicon is easy to ascertain. Cloth, and more specifically woolen cloth, was the most important manufactured economic product of the central and late Middle Ages. The market for woolen cloth was the first and largest integrated market of medieval Europe, which integrated merchants and languages from all over the continent who had to agree on a fixed terminology to define and distinguished their products in order to understand each other. In this way, this research project hypothesizes that the international trade for dyed cloth was an important vector of diffusion for many color names currently used in Western European languages.

Of course, this hypothesis is not meant to be all-inclusive. The system of color names we are talking about was standardized but never formalized, so it cannot explain the origin of all color names. It is not a question of whether the hypothesis is true or false, but to what extend. In fact, it has already been established in terms of the color *scarlet* that the hypothesis works, so all that remains is to extend the investigation to the rest of the chromatic lexicon.

METHOD AND WORK PLAN

The research is organized around three main axes of research and questions.

1. How widespread was the system of color names for dyed cloth? Could there have been several parallel systems depending on the areas? This question is primarily a technical issue. It comes down to listing color names for dyed cloth and identifying the colorings or dyeing processes attached to them throughout Europe. The sources needed to address these questions are composed of dyeing and technical handbooks, archives of textiles corporations, and, when available, accounts of dyers or clothmakers. I have already conducted a study for medieval Northern Italy and Tuscany. The second area I am currently investigating is the drapery region of Northern France and Flanders; on one hand, because it was the other pole of textile industry in medieval Europe, and on the other, because of the staggering quantity of published sources available (Espinas-Pirenne 1906-1924; De Sagher 1951-1966). In addition to these two regions, the number of areas to investigate is virtually unlimited. I plan to extend the research to at least the Valencia area, as I am already familiar with its archives. These archives have preserved one of the few non-Italian dyeing handbook for the medieval period (Cifuentes-Cordoba 2014) and because of the interest of local historians in textile industry and dyeing (García Marsilia 2017). Moreover, given the recent study of John Oldland on the medieval English woolen industry (2019) – a theme that has long been neglected by Anglo-Saxon medievalists – it seems as thought the British archipelago is in need of a visit as well.

2. How can the system of color names for dyed cloth be organized chronologically? This is the most difficult question and the one that requires consulting the widest variety of sources, beginning with trade manuals, customs regulations and cloth merchants' accountings. Fortunately, this enquire is not baseless, as the fundamental foundations of the history of textiles in the Middle Ages have been already established by economist historians. Thus, it is necessary to pay particular attention to the import trade on cloth from the Northern France and Flanders to Italy through the fairs of Champagne in the 13th century. I have already studied a large number of Florentine merchant accounting of the 13th century and early 14th centuries. The enquiry is not yet finished but, as a preliminary result, it appear that the Florentine chromatic lexicon of dyed cloth was more extensive in the 13th century than in the 14th century, and that it integrated in the 13th century many color names derived from ancient French as *bertamorea* (from *mouré*, "purple"), *bioio* or *bloio* (from *bloe*, "blue"), *cagnetto* (from *cain*, "ash grey"), *dosnino* (from *dosien*, "ash grey"), *membrino* (from *marbrin*, "marble"), *morello* (from *mouré*), *nai* (from *naïf*, "natural color"), etc. It is also possible to add to this list the terms *giallo* (from *jaune*, *jaulne*), *scarlatto* (from *écarlate*) and *tanè* (from *tanné*, "brown") which, unlike the previous terms, took root in the textile jargon and then, al least for the first two, within the common vernacular. Many other technical terms which did not designate colors passed from ancient French to Italian through the import trade of Franco-Flemish cloth in the 13th century (*accole*, *alla*, *biffe*, *mescolato*, *saracinato*, *saia*, *sargia*, *tacchia*, *tritana*, *torcia*, *torsello*, etc.). (Cella 2003, Vaucher-de-la-Croix 2013). The fact that the Florentine chromatic lexicon became more narrow and consolidated in the 14th century can be interpreted as a consequence of the diminishment of the Northern European import trade of cloth to Florence and as a result of the development of the Florentine woolen industry meant to clarify the terminology by eliminating doublets, redundancies, synonyms, imprecisions, etc.

3. How the colors names for dyed cloth become incorporated into common language? Indeed, the purpose of this project's axes 1 and 2 is to demonstrate that color names for dyed cloth formed a standardized system that belongs to a professional jargon. However, technical terms do not necessarily pass into common language and it is necessary to explain why, in the case of color, the color names for dyed cloth would have done so. Another way to ask this question is: why do the names of colors come

from textile dyeing rather than from other technical fields such as painting, or other linguistic disciplines such as poetry, literature, optics, heraldry, etc.? The simplest answer to this question is because it is about clothing. Not everyone was interested in painting, in literature, in the Aristotelian theory of light, in the studies on optics of Alhazen, etc., but everyone worn clothes. To answer this question in a more informed way, we must compare the occurrences of the color names in the lexicon and their fields of application. As previously mentioned, the occurrences before 1300 of the Italian word *giallo* (yellow) often concerned the lexicon of textile or cloth and, even if the word did not only refer to dyeing, we can hypothesize that it entered into common usage through clothing. Methodologically, this type of investigations faces important practical problems that make its feasibility dubious. But there is another way of approaching this question that is of particular interest regarding the study of medieval clothing consumption, that point out the strikingly different relationship to clothing colors we have today.

EXPECTED OUTCOMES

The research aims to constitute an original approach to the question of the origin of color names, even if it does not pretend to entirely answer this deep question. Among the expected results will be an insistence on the close connection between color names and the raw materials from which colors were formerly obtained in order to stress the material dimension of color which is hardly ever considerate on the debate on color names. Furthermore, this research will also constitute an original approach to the history of color that, in contemporary historiography, is left to the historians of mentalities and characterized by a strict dematerialized conception of color. Finally, considering that color names are not a linguistic but a civilizational fact, this research, beyond its very subject, intents to identify historical processes that contributed to the cultural unification of the Western Europe.

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