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De Piles, Drawing and Color. An Essay in Quantitative Art History*

Introduction

De Piles, the French art theorist and critic, also known for his disputed balance des peintres (1708) in which he decomposes painting into four fundamental characteristics (composition, drawing, color, expression) does not share the views of the French artistic establishment of his time. While he advocates the importance of color, and goes as far as writing that "there is no painting if color does not go with drawing," or that "color is the soul of painting," the Académie Royale de la Peinture et de la Sculpture created in 1648 by the Court,¹ considers drawing to be the most important element.² This is not new, but merely pursues a debate which had already started during the 16th century in Italy:³ while Vasari complained that Titian should have been more careful in drawing, Dolce considered color as being as important as drawing. The official French doctrine, pursued by the Academy is Poussinisme. Poussin had written that "the colors in painting are blandishments to lure the eyes," and Le Brun, Louis XIV's official painter "associate[s] true value in art with drawing, which exemplifies 'reason', with color being of lower account because it is concerned with the senses."4 In his Dialogue sur le coloris published in 1673,⁵ de Piles, on the contrary, blames Poussin for neglecting color. His admiration goes instead to Rubens, Van Dijck, Corregio and Titian,⁶ and he is probably the initiator of what came to be called Rubénisme, in opposition to Poussinisme. It is worth pointing out that de Piles' writings may be considered as less conformist at a time in which being condemned to the galleys was not too uncommon.⁷ In this, his position is comparable with that of the very few who, like Molière or de la Fontaine, "dared" to confront the Court which nevertheless took them under their protection.

But actually, de Piles may not have been that far from what the Court, if not the King, really thought of art, or at least of the art that was represented in his famous collection. We shall try to show why this is the case by using three sources of data: (a) de Piles' *Abrégé de la vie des peintres* written in 1699,⁸ at a time in which his positions may already have been considered as more in line, but which, in no way contradict what he was sustaining in his earlier writings, such as the *Dialogue sur le coloris* published in 1673; (b) his *Cours de peinture par principes*,⁹ published in 1708, a few months before his death; in this work, he constructs his *balance des peintres* in which he scores 56 "among the best known" painters of his and previous times on a scale between 0 and 20, according to four criteria which he finds important: composition, drawing, color,¹⁰ and expression; and (c) the paint-

	Relation 1		Relati	on 2	Relation 3	
	Coeff.	St.err.	Coeff.	St.err.	Coeff.	St.err.
Composition	4.1	4.1				
Drawing	8.4	5.1				
Color	7.4*	3.1	6.7*	2.7		
Expression	7.3 °	3.9				
Comp+Draw+Expr			6.5*	1.2		
Comp+Draw+Col+Expr					6.5*	1.3
Intercept	-175.5*	81.8	-164.6*	57.9	-163.1*	53.6
R-squared		0.357	0	.351	().351
Adjusted R-squared		0.305	0	.326	().339
No. of observations		54		54		54

The "dependent" variable in each equation is the number of lines in the Abrégé.

* indicates that the coefficient is significantly different from 0 at the usual 5% (and in some cases, even at the 1%) probability level; ° indicates that the coefficient is significant at the 10% probability level.

Table 1. Agreement between the Abrégé and the balance.

ings possessed by Louis XIV in his personal collection. Our paper draws on the intuition of Mairesse¹¹ and, more specifically, on a table in which he connects in an informal way de Piles' scores, the number of lines devoted by him to the same painters in his *Abrégé*, as well as the number of paintings in the King's collection. Mairesse suggests that the three groups of variables may be related.

Using this intuition, we show (a) that de Piles' scores in the *balance des peintres* are only mildly reflected in his other writings and that color comes out only as a weak and unconvincing explanation of the space he devotes to individual artists in his *Abrégé*; (b) that his *Abrégé* is more closely related to the number of paintings in the King's collection; (c) that Félibien des Avaux,¹² the (allegedly) traditionalist art historian who became member of the Academy much earlier than de Piles, admitted in 1699 only, was less in agreement with the tastes of the King than was de Piles; and (d) that de Piles changed views on painting and can be considered to have predicted in a much better way than Félibien and the Academy, who were the masters who would last, and those who would not.

De Piles and de Piles

We first examine whether the *balance* is consistent with the *Abrégé*, by relating the ratings on the four criteria (composition, drawing, color, expression) for each of the 54 painters¹³ in the *balance* to the number of lines devoted to the same painters in the *Abrégé*. If the two writings were consistent, they would strongly agree. And here, it is important to mention that de Piles is considered to have been very coherent over time. Thuillier,¹⁴ in his Préface to de Piles' *Principes* insists that "de Piles does not conceal that, very often, he merely reorders [in his *Principes*] the comments he had published fourty years earlier... He never hesitates to reproduce, without any change, complete sentences [from his earlier writings] and confesses that he would have liked to repeat them litteraly." Teyssèdre¹⁵ makes similar comments.

Our first results are summarized in Table 1. As can be seen from Relation 1, there is little consistency:¹⁶ a mere 35.7% of the total variance of the number of lines in the *Abrégé* is "explained" by the four characteristics of the *balance*.¹⁷ Each coefficient which appears in Table 1 can be interpreted



Figure 1. Relation between de Piles' balance and his Abrégé.

as giving the number of additional lines in the Abrégé for an increase of one unit in the score. For instance, going from 10 to 11 (as well as from 13 to 14, since the relation is linear) in color, gives 7.4 additional lines to the painter in the Abrégé. For each equation, the second column gives the standard error of the coefficient, which is an indication about whether the coefficient is, in the statistical sense, significantly different from 0.18 Only one of these (color) carries a coefficient that is significantly different from zero. This is of course in line with de Piles' thoughts about color. However, since the other coefficients are not significantly different from zero, this also seems to imply that the other characteristics, when taken individually, have no importance.¹⁹ Therefore, we estimate a second equation (Relation 2), in which the scores for composition, drawing and expression are added. The results show that the three variables are significant when lumped, but not individually, that color is still significant, and that the adjustment (measured by the associated R-squared) is almost identical. This, together with the fact that the coefficients in both equations are quite close, leads us to ask whether they can be considered as statistically equal, or whether such an assumption should be rejected. The result is given by Relation 3, which shows that lumping all four scores leads to almost the same result.²⁰ This means that only the total score matters: each of the four characteristics has the same "influence" on the number of lines in the *Abrégé*, or each characteristic has the same weight, contrary to de Piles' claim concerning the importance of color, which should have come out with a larger weight.²¹

Figure 1 illustrates the relation between the aggregate score of the balance and the number of lines in the *Abrégé*. It shows that the relation is indeed positive (the cloud of points is oriented SW to NE), but weak.

So far, the results point to two conclusions. Color is important, but distinguishing four characteristics, as does de Piles, is superfluous. Only the aggregate score for each painter matters,²² though not very much, since it is only very losely related to the length of the discussion that is devoted to him in the *Abrégé*, written ten years earlier. This raises the following two questions: can the *balance* be considered as a serious piece of work, and is de Piles consistent with himself. To the first question, de Piles gives his own (somewhat unconvincing) answer that "[the balance] was written for my own pleasure, rather than to attract others to my view," though his contemporaries took it very seriously. He does not answer the second question.

De Piles and Louis XIV

We have just argued that the space de Piles devotes to each artist in his *Abrégé* is hardly related to his personal tastes, summarized in the *balance*. Is it possible to find other explanations for the *Abrégé*? As already said, the table in Mairesse contains, for each painter graded in the *balance*, the number of paintings in the King's collection,²³ suggesting a possible link between the two variables (number of lines in the *Abrégé* and number of paintings in the royal collection). Before turning to the conclusions of this comparison, some comments about causality (between the constitution of the collection and the discussion in the *Abrégé*) are useful.

Could de Piles' tastes influence the setting-up of the collection, or was de Piles influenced by the collection and, as suggested by Mairesse, tried to please the King. In the first case, causality flows from de Piles' tastes and writings to the collection, in the second one, causality is reversed. Of course, one cannot discard (nor seriously test) the third possibility that the King had the same tastes as de Piles, and also prefered color, while officially protecting Le Brun, the Academy and drawing.

The first possibility (de Piles influenced the King) is easy to rule out, since a large part—and probably the best one, by contemporary standards—of the King's collection had already

been put together in 1673, the year in which de Piles' Dialogue sur le coloris was published. In 1662, the King (or his advisers, since he was only 24 years old) bought Italian masterpieces from Everard Jabach (Leonardo da Vinci, Giulio Romano, Giorgione, Titian, Guido Reni, Caravaggio and Corregio). In 1665, the Duc de Richelieu (great nephew of the Cardinal) was forced to sell his collection to the King, following a gambling loss. The King bought again 101 paintings (and 5,542 drawings) from Jabach in 1671 (among others Veronese, Lorrain and Holbein). During the same year, he acquired 34 works done "by the best Italian painters" from a certain de La Feuille. There are also pieces which were donated by the Cardinal de Richelieu, some were acquired from Mazarin, some seized from Fouquet after he fell out of favour in 1661, some were offered by the Prince Pamphilij, etc.²⁴ The 930 French paintings, most by members of the Académie Royale, were probably bought throughout his life.

The other alternative (de Piles anxious to please the King) does also seem improbable. In his *Conversation*,²⁵ de Piles qualifies the King's collection as "one among the best in Europe;" a flatterer would probably have been inclined to write "the best." His *Dialogue sur le coloris*, published in 1673, is a defence of Venetian painters and of color. In 1681, he publishes his *Dissertation sur les ouvrages des plus fameux peintres*, followed by a *Vie de Rubens*. In his *Abrégé*, published in 1699, he avoids discussing most of the French painters of his time, but here he takes as an excuse that they are still alive (so did Félibien in his *Entretiens*). In 1708—he was already 73 years old, and did probably care less, though he knew what being imprisoned means, since he had spent five years (1692-1697) in a Dutch jail—, he dares to score 56 of the "best known" painters in his *balance*, of which only four are French,

	Italy	France	N.Europe	Germany	All
King's collection	369	930	141	38	1,478
De Piles' balance	254	69	67	11	401
% of collection in de Piles	69	7	48	29	27

Note that this count is approximate, since the King also possessed a small number of British (3 by Lely) and Spanish paintings (a few Riberas, one by Collantes, one by Velásquez).

Table 2. The King's collection and the balance (No. of paintings).

	Relation 1		Relation 2		Relation 3		Relation 4	
	Coeff.	St.err.	Coeff.	St.err.	Coeff.	St.err.	Coeff.	St.err.
King's collection	8.6*	1.0	7.2*	1.2	7.1*	1.2	7.3*	1.2
Color			1.0	2.3				
Comp+Draw+Expr			2.6*	1.2				
Comp+Draw+Col+Expr					2.6*	1.1	2.7*	1.1
Time							0.28°	0.17
Intercept	50.7*	12.2	-33.6	49.7	-48.1	45.8	-96.4	53.5
R-squared	(0.581	(0.623	0	.618	().638
Adjusted R-squared	().573	(0.600	0	.603	(0.617
No. of observations		54		54		54		54

The dependent variable is the no. of lines in the Abrégé.

*indicates that the coefficient is significantly different from 0 at the usual 5% (and in some cases, even at the 1%) probability level; ° indicates that the coefficient is significant at the 10% probability level.

Table 3. Agreement between the Abrégé and other variables.

and, as can be seen from Table 2, represent merely 7% of the French paintings of the King's collection.

The collection contains 1,478 paintings, while there are only 401 (a mere 27%) crafted by the artists quoted in the *balance*. Therefore, the painters in the *balance* are not fully representative of the collection, since French artists are missing. The reason for this is that, de Piles' *balance* deals with "the best known" painters (these are his own words, which are not so nice a compliment to his French countrymen, and do not express a lot of admiration for the King's choices either). And indeed, many names appearing in the collection, but not in the *balance*, have not passed the test of time.^{26,27} We may conclude that de Piles is obviously not someone who wants to please, though as noted by Teyssèdre (1957, p. 466), when the *balance* was published, the dispute between color and drawing was closed.

Thus, only the third possibility remains. The King and his entourage shared the same tastes as de Piles, who was not isolated in his defence of color versus drawing, contrary to what is usually believed. But this in turn raises new questions. Why is it that the Court supported the Academy, of which most members defended drawing. Why was Le Brun (who presented himself as sustaining reason—i.e. drawing—against senses—i.e. color) the official painter of Louis XIV. Why was de Piles admitted to the Academy only in 1699,²⁸ though he had been known in artistic circles since his translation of Du Fresnoy's *De arte graphica* in 1668, which, according to Skliar-Piguet²⁹ conferred on him "the place in the contemporary artistic world of Paris that had previously been occupied by Félibien."

We eventually made the assumption that, since the collection was there before de Piles' most important contributions were published—the *Dialogue* (1672), the *Abrégé* (1699), and the *Cours de peinture par principes* (1708)—, causality cannot flow from the the *Abrégé* to the collection.

Table 3 summarizes our results, based on the relations between the collection, the *Abrégé* and the *balance*. In Relation 1, we formulate the simplest model, in which the number of lines in the *Abrégé* is related to the number of paintings in the royal collection. This result makes it obvious that the *Abrégé* is much more closely related to the collection than it is to the scores of the *balance*, as is shown by the R-squared, which jumps from 0.357 in the best case of Table 1 to 0.581 here. This relation, also illustrated in Figure 2, suggests two



Figure 2. Relation between the King's collection and de Piles' Abrégé.

observations, when compared with Figure 1. The relation is again postive and the two clouds of points have the same SW to NE orientation, but the orientation of the scatter of points in Figure 2 is somewhat sharper than in Figure 1: The relation between the collection and the *Abrégé* is stronger than it is between the *balance* and the *Abrégé*.

Taking into account our previous results concerning the scores of the balance, we also introduce the score on color and on the aggregate "composition+drawing+expression." Relation 2 shows that color does not come out in a significant way. Therefore, in Relation 3, we consider the total score (composition+drawing+color+expression), which contributes in a very significant way, since it increases quite substantially the explained variance of the *Abrégé*. Finally, in Relation 4, we introduce an additional variable which represents the number of years elapsed between the publication of the *Abrégé* (1699) and the period during which the artist was active.³⁰ We expect the coefficient to be positive: the discussion in the *Abrégé* should be longer for ancient artists than for more recent ones. The variable picks indeed a positive sign,

n." ant **De Piles and Félibien** bre on- One could argue that the choice of artists made by de ub- Piles in his *balance* is biased, and cannot be used to analyze

much more than de Piles with himself.

Piles in his *balance* is biased, and cannot be used to analyze the relations between Félibien and the tastes in his time, in particular, the King's collection. This, we think, does not seem to be the case. First, though the number of French painters in his *balance* is small (Bourdon, Le Brun, Le Sueur, and Poussin),³¹ he seems to have chosen those who passed the test of time, and has given them scores which are, on average and with the exception of color, higher than those given to oth-

giving support to our assumption, though it is significant at the 10% probability level only. It increases even more the fit, and

we are now able to explain over 63% of the total variance,

approximately twice as much as when the King's collection is

not included. The discussion leads us to conclude that de

Piles and the King were, after all, in very strong agreement...

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	No. of painters	Composition	Drawing	Color	Expression	Tota
Italian painters	39	11.3	12.9	10.8	6.7	41.7
French painters	4	14.0	14.0	6.5	12.5	47.0
Other painters	11	11.8	10.9	12.8	9.2	44.7
All painters	54	11.6	12.6	10.9	7.7	42.8

Table 4. De Piles' average scores by nationality.

ers. Italian painters, who are the most numerous, get the smallest average scores, as is shown in Table 4.

Secondly, most of the French painters who are in the royal collection, are not quoted by Félibien either, since he does "not want to cast judgments on living persons: it is time and death that make their merits and defects appear, while envy and favouritism have kept them hidden during their life."³² This is also the case of de Piles, both in his *balance* and his *Abrégé*. Therefore, we think that the sample of painters in the *balance* can be considered as representative enough to discuss Félibien's tastes as put forth in his *Entretiens*.³³

	Including Poussin				Excluding Poussin			
	Relat	ion 1	Relation 2		Relation 1		Relation 2	
	Coeff.	St.err.	Coeff.	St.err.	Coeff.	St.err.	Coeff.	St.err
King's collection	42.9*	10.2	29.7*	9.0	18.1*	6.0	13.3*	5.7
Comp+Draw+Expr			18.5*	8.1			17.1*	4.9
Time			2.8 °	1.7			1.8°	1.0
French			1772.9*	348.4			588.4*	248.5
Intercept	84.5	123.1	-934.9*	391.5	182.2*	67.7	-628.4*	238.0
R-squared	().274	(0.582	0	.164		0.415
Adjusted R-squared	().259	(0.544	0	.146		0.361
No. of observations		49		49		48		48

The dependent variable is the no. of lines in Félibien's Entretiens.

* indicates that the coefficient is significantly different from 0 at the usual 5% (and in some cases, even at the 1%) probability level; ° indicates that the coefficient is significant at the 10% probability level.

Table 5. Agreement between the Entretiens and other variables.



Figure 3. Relation between the King's collection and Félibien's Entretiens (Poussin included).

Table 5 contains results in which we relate the number of lines in Félibien's Entretiens to certain other variables, including the number of paintings in the King's collection, de Piles' ratings, an indication of the period in which each painter was active and the nationality of the painter.³⁴ We computed several relations, but only report on two of the most interesting (Relation 1 and Relation 2 in Table 5). However, Félibien devotes over 5,000 lines to Poussin, which is much more than what he devotes to any other artist; this may seriously affect the results. Figures 3 and 4 try to make this comment more intuitive. It is easy to see (Figure 3) that the observation "Poussin" lies very far in the NE corner, forcing the line which may be drawn through the scatter of points to take a SW-NE direction. Taking "Poussin" out, as is done in Figure 4, avoids this deformation. Therefore, we discuss each of the two equations including and excluding Poussin. Fortunately, it turns out that the results are not very different.

First, the calculations show that the correlation between the *Entretiens* and the royal collection is very weak (0.27 if Poussin is included, 0.16 without him), but, more importantly, it is much weaker than the one between de Piles' *Abrégé* and the collection (0.58 in Table 3). This is remarkable, given the relations between Félibien, the Academy, and the King who supports the Academy. For example, in 1667, Colbert assigns as homework to its members to study the royal collection, and Félibien is in charge of the report.³⁵ In fact, as is suggested by Jimenez, "the Academy is a convent, where Le Brun officiates as its uncompromising and authoritarian great priest, and the masses are sung by André Félibien."³⁶

Secondly, when more variables are added in order to "explain" the *Entretiens* (Relation 2), the following conclusions can be drawn: (a) the coefficient for de Piles' color score is not significantly different from zero; color (as judged by de Piles) has no influence on the *Entretiens*, which comes, of course, as no surprise; (b) de Piles' aggregate score composition+drawing+color+expression is not significant either, but (c) the aggregate score of which color is excluded has a positive and significant effect on the *Entretiens*; this confirms that Félibien was not interested in color at all; (d) "time", i.e. the number of years elapsed between the publication of the *Entretiens* and



Figure 4. Relation between the King's collection and Félibien's Entretiens (Poussin excluded).

the period during which the artist was active is also significant (though at the 10% probability level only); (e) finally, the fact that the artist is French³⁷ has a tremendous impact on the *Entretiens*: all other things being equal, a French artist gets some 1,773 or 588 extra lines, depending on whether Poussin is included in the calculations or not. This is interesting, since it is not so with de Piles' *Abrégé*, who seems to be much less chauvinistic than Félibien.

We may thus conclude that Félibien, and of course the painters belonging to the Academy, were much less in agreement with the King (i.e. with the royal collection) than de Piles.

De Piles, Félibien, tastes and the test of time

We finally study how de Piles' *Abrégé* and Félibien's *Entretiens* passed the test of time, by comparing the number of lines devoted to each painter by de Piles, Félibien and two contemporary encyclopedias, edited by Myers³⁸ and Turner.³⁹ Table 6 describes results, in which we compute the (squared)

correlation coefficients between the various sources, while Figure 5 illustrates two scatter diagrams: de Piles-Turner and Félibien-Turner.⁴⁰

Recalling that the larger the value of the correlation coefficient, the better the agreement between two variables, we immediately see that de Piles passed the test of time in a much better way than Félibien, who was constrained by the conventions of his time and those of the Académie Royale.

Though correlations are much higher between de Piles and the two encyclopedias than they are between Félibien and the encyclopedias, it may happen that both de Piles and Félibien have contributed to contemporary tastes or views. To test for this, we estimate relations in which the number of lines in the *Abrégé* and in the *Entretiens* concur to explain the number of lines in both encyclopedias. The results reproduced in Table 7 show that Félibien does not contribute to today's views: the number of lines in Félibien is never significant, but there is worse, since in five cases (out of six), the point estimate turns out to be negative, which implies that the more space Félibien devotes to a painter, the less attention he receives today.

	54 obs.	49 obs.	48 obs.
de Piles-Myers (1959)	0.331	0.350	0.378
de Piles-Turner (1996)	0.461	0.498	0.514
Félibien-Myers (1959)	-	0.063	0.165
Félibien-Turner (1996)	-	0.088	0.179

There are three sets of observations: the set of 54 observations includes all painters considered by de Piles in his *Abrégé* (and his *balance*). Since 5 painters who were still living (Diepenbeck, Jordaens, Le Brun, Palma Giovane and Teniers) are excluded from Félibien's *Entretiens*, the calculations can also be based on 49 observations only. Finally, since Félibien devotes so many lines to Poussin, we also made the calculations without Poussin; this leads to the dataset with 48 observations only.

 Table 6. Agreement between de Piles, Félibien and

 contemporary sources (squared correlation coefficients).

Conclusion

Our paper, and the calculations on which it is based, can and will obviously be criticized for the very same reasons for which de Piles' balance was and still is. De Piles himself looked at it as a game, but his contemporaries considered it as an "ingenious way to characterize genius."41 Later on, this view changed. Julius von Schlosser hates it.42 Gombrich considers it as a "notorious aberration."43 Junod thinks that "[it] pretty much looks like the prize-lists set up by some of our contemporary art critics."44 In his book on de Piles' theory of art, Puttfarken thinks of him as having been "at his worst when he tried to be most systematic."45 In his preface to a recent edition of de Piles' Cours de peinture, Thuillier (1989, p. xxvii) compares the balance with "contemporary art dictionaries which set to three pages, half a page, fifteen or five lines the length devoted to each artist, and which make it to a perhaps necessary but nevertheless unpleasant exercise." And in this, we ramble twice, since we use the balance and the length of entries in art dictionaries. The arts, and art history in particular, are not supposed to lend themselves to quantification, even if it is simple, though reading through what art historians have said and say may lead to statements that may be less objective than numbers,46 even if numbers do not perfectly represent and translate thought.

	54 obs.		49 obs.		48 obs.		
	Coeff.	St.err.	Coeff.	St.err.	Coeff.	St.err.	
Myers explained							
de Piles' Abrégé	1.52*	0.33	1.76*	0.37	1.60*	0.40	
Félibien's Entretiens	-0.03	0.05	-0.06	0.05	0.04	0.10	
Intercept	4.04	43.63	-4.25	47.82	-12.38	48.38	
R-squared	0.311		0.366		0.380		
Turner explained							
de Piles' Abrégé	2.03*	0.34	2.34*	0.37	2.23*	0.40	
Félibien's Entretiens	-0.04	0.05	-0.07	0.05	-0.02	0.10	
Intercept	112.31*	43.90	100.34*	46.91	95.23*	47.80	
R-squared	0	.470	0.	0.514		0.514	

The dependent variable is the no. of lines in Myers' or in Turner's encyclopedias.

* indicates that the coefficient is significantly different from 0 at the usual 5% (and in some cases, even at the 1%) probability level.

Table 7. Agreement between de Piles and Félibien with contemporary sources.



Figure 5. The test of time: de Piles, Félibien and Turner.

Our only contention is that our results look sensible, and shed perhaps some new—even if only dim—light on the probable discrepancy between tastes and doctrine at the time of de Piles and Louis XIV.⁴⁷ We think that without the use of some quantitative analysis, this would have been much more difficult to assess.

We have shown that de Piles was less consistent than what is often thought. His balance does only very imperfectly reflect his earlier writings, and does not stress the weight he has otherwise put on color. Composition, drawing, and expression, the three other characteristics he disentangles in painting, are as important as color. Of course, this can be interpreted in a slightly different way. He is the one who, contrary to other art theorists and connoisseurs of his time, including Félibien, stresses the importance of color, without denying that of drawing, composition or expression. What counts is that he has singled out the importance of color, but that does not necessarily imply that color should get more weight than the other characteristics.

Clearly, he was neither the first one to assert this, nor the only one even in his time and in his country. The King also did, though it is singular that he, who was the protector of the Academy and whose preferred painter was—at least officially—Le Brun, a tough defender of drawing against color, shared the tastes of de Piles and not those of the Academy. De Piles changed views on art, much more than Félibien, and is closer to today's tastes than most of his contemporaries.

* We are grateful to François Mairesse who introduced one of us to de Piles. Orley Ashenfelter, Neil de Marchi, William Grampp, Philippe Junod, Thierry Lenain and François Mairesse provided many comments on a previous version, for which we are very grateful. We should also like to thank Philippe Junod, Didier Martens and Ignace Vandevivere for discussions, references and suggestions before the paper was started.

¹ Actually by Cardinal Mazarin. Louis XIV, born in 1638, became King in 1643, but his mother, Anne d'Autriche, was acting as regent when the Academy was created.

² Junod points out that de Piles inverts the classical relation between color and drawing. See Ph. Junod, *Transparence et Opacité*, Lausanne: L'Age d'Homme, 1976, p. 127.

³ And even much earlier, according to Junod who traces it back to ancient times: Plutarch v. Pliny, Vitruvus, etc. See Ph. Junod, "Critique d'art," in M. Laclotte et J.-P. Cuzin, eds., *Dictionnaire de la Peinture*, Paris: Larousse, 1996.

⁴ See G. Newman, "Color," in J. Turner, ed., *The Dictionary of Art*, New York: Grove, 1996, vol. 7, pp. 626-631. ⁵ R. de Piles, *Dialogue sur le coloris*, Paris 1673.

⁶ As well as to Raphael, though de Piles' appreciation of Raphael's way of using colours is not very high.

⁷ This is what happened in 1668 to Charles Patin, a French collector, who refused to yield his collection to the King.

⁸ R. de Piles, Abrégé de la vie des peintres, avec des réflexions sur leurs ouvrages, et un traité du peintre parfait, de la connaissance des dessins, et de l'utilité des estampes, 2nd edition, Paris, 1715.

⁹ R. de Piles, *Cours de peinture par principes*, edited by J. Thuillier, Paris: Gallimard, 1989.

¹⁰ De Piles writes *coloris*, and suggests that this is not exactly the same as *color*.

¹¹ F. Mairesse, Réflexion sur la balance des peintres de Roger de Piles, *Recherches Poïétiques* 8, 43-49, 1999.

¹² Author of the celebrated *Entretiens* (1725), published between 1666 and 1688. See A. Félibien des Avaux, *Entretiens sur les vies et sur les ouvrages des plus excellens peintres anciens et modernes; avec la vie des architectes*, edited by Sir Anthony Blunt, Farnborough: Gregg Press, 1967. ¹³ Note that the *balance* contains 56 painters, but only 54 are scored on all four criteria, while, for reasons that are not known, Le Guide (Guido Reni) is not scored on composition and Polidoro da Caravagio is not scored on color. In the rest of the paper, we only consider those 54 painters who are given all four scores. One painter (Luca Giordano, 1634-1705) appears in the *balance*, but not in the *Abrégé*. We kept him in our calculations.

¹⁴ J. Thuillier, Préface, in de Piles' *Cours de peinture par principes*, Paris: Gallimard, 1989.

¹⁵ B. Teyssèdre, *Roger de Piles et le débat sur le coloris au siècle de Louis XIV*, Paris: Bibliothèque des Arts, 1957.

¹⁶ Consistency can be measured by the R-squared which are reproduced in Table 1. In statistical terms, an R-squared gives the percentage of the variance (variability) of the dependent variable (here the no. of lines in the *Abrégé*) that is "explained" by the other variables (here the scores on the four characteristics). A value of 1 indicates perfect matching; the lower the value, the lower the quality of that matching.

¹⁷ The *balance* was written ten years later than the *Abrégé*, so that the scores of the *balance* can hardly be considered to "explain," in the causal meaning of the word, what had been written ten years earlier. We will get back to this issue later on.

¹⁸ A coefficient is said to be significantly different from 0 at a given (usually 5%) probability level, if the value 0 is not contained in an interval constructed as [coefficient — 1.96 times its standard error, coefficient + 1.96 times its standard error]. For color, this interval is [7.4 – 1.96 x 3.1, 7.4 + 1.96 x 3.1]. It is easy to check that 0 is not contained in the interval; the coefficient is therefore significantly different from 0 (or, for short, significant). The reader can check that this is not the case for composition, drawing or expression.

¹⁹ This is actually the consequence of multicollinearity in the scores: they are too much correlated one with the other.

 20 Formally, we run a test of equality between the four coefficients of Relation 1. The resulting F-variable with 3 and 49 degrees of freedom is equal to 0.15, while the tabulated value is equal to 8.6 at the 5% level, showing that we cannot reject the hypothesis of equality.

²¹ However, we should point out that color gets a zero weight by Félibien. See the section on Félibien.

²² Raphael, for instance, appears second in the balance, though his marks on color are not very high.

²³ We corrected some typos in his table on the basis of B. Teyssèdre, *L'histoire de l'art vue du Grand Siècle*, Paris: Julliard, 1964, pp. 192-200.

²⁴ For more details, see A. Hulftegger, "Notes sur la formation des collections de peintures de Louis XIV," *Bulletin de la Société des Historiens de l'Art Français*, 1954, pp. 124-134.

²⁵ R. de Piles, Conversation sur la connaissance de la peinture et sur le jugement qu'on doit faire des tableaux, Paris, 1677.

²⁶ Who still knows today Bernaerts (61 works in the royal collection), Baptiste et Fontenoy (45), Cotelle (41), Martin l'Ainé (34), Mauperché (29), Houasse (28), Picard (27), Vandermeulen (26), Verdier (16), Madelaine Boullogne (14), Parrocel (13), Milet (13), Beaubrun (12), Quillerié (12), and many others. See Teyssèdre (1964, pp. 200 and 339).

²⁷ Note however that de Piles avoids discussing painters who were still living (on this issue, see Teyssèdre, 1964, p. 338, footnote 25 and p. 339, footnote 30) which is the case of many of those who appear in the collection. Bourdon, Le Brun, Le Sueur and Poussin appear in the *balance* as well as in the collection; but some wellknown artists, such as Lorrain, Nicolas and Pierre Mignard, or Vouët are present in the collection, are discussed in the *Abrégé*, but are missing in the *balance*.

²⁸ This may be interpreted as the consequence of a reversal of tastes at the Court, due to the success of the younger generation, represented by the duke of Chartres, a Rubenist, on the duke of Burgundy, a Poussinist, mirroring the opposition between younger painters who were in favor of color against older ones who still defended drawing. See N. Heinich, *Du peintre à l'artiste. Artisans et académiciens à l'âge classique*, Paris: Ed. de Minuit, 1993, p. 153.

²⁹ A. Skliar-Piguet, "Roger de Piles," in *The Dictionary of Art* (1996), vol. 24, pp. 805-806.

 30 This variable is constructed as follows: from the year of the publication of the *Abrégé* (1699), we subtract the year in which the artist was at his mid-life.

³¹ The argument that he was quarelling with the Academy does not apply here, since at the time he constructed his *balance* (1708), he was member of the Academy for almost ten years (1699).

³² "Je ne crois pas devoir porter aucun jugement sur les personnes vivantes: c'est le temps et la mort qui mettent en plein jour les mérites ou les défauts des hommes que l'envie ou la faveur ont tenus cachés pendant qu'ils ont vécu" (Félibien, *Entretien* 9, pp. 459-460).

³³ Note that Diepenbeck (died 1675), Giordano (died 1705), Jordaens (died 1678), Le Brun (died 1690), Palma Giovane (died 1628), and Teniers (died 1690) do not appear in his book. Palma is of course an exception: He is not discussed by Félibien, though he died long before the *Entretiens* were written.

³⁴ In these regressions, we ignore the problems posed by causality. The *Entretiens* were published between 1666 and 1688. The important part of the King's collection was there in the early 1670s. De Piles' *Dialogue sur le coloris* was published in 1673, but his *balance* only appeared in 1708.

³⁵ See Teyssèdre (1964), p. 11.

³⁶ "Si l'Académie est un 'couvent', si Le Brun officie en 'père supérieur' intransigeant et autoritaire, la 'messe obligatoire' est dite par André Félibien." M. Jimenez, *Qu'est-ce que l'esthétique?*, Paris: Gallimard, 1997, p. 65.

³⁷ The variable "French" is a dummy which takes the value 1 if the artist was French, and 0 otherwise.

³⁸ B. S. Myers, ed., *Encyclopedia of World Art*, New York: McGraw-Hill, 1959.

³⁹ The Dictionary of Art (1996).

⁴⁰ Poussin is ignored in the figures concerned with Félibien, who devotes a very large space to him (over 5,000 lines), while both de Piles and Turner are less enthousiastic. Therefore he does not appear as an outlier in the de Piles-Turner scatter diagram.

⁴¹ See Thuillier (1989, p. xxvii).

⁴² See his very long comments in his *Kunstliteratur*.

⁴³ E. Gombrich, *Norm and Form. Studies in the Art of the Renaissance*, London: Phaidon, 1966, p. 76.

⁴⁴ In Critique d'art, 1996, p. 505.

⁴⁵ T. Puttfarken, *Roger de Piles' Theory of Art*, New Haven: Yale University Press, 1985, p. 42.

⁴⁶ Note that even Teyssèdre (1964) devotes three chapters (chapters 1 to 3 in part 2) to a quantitative analysis of de Piles *balance*, his *Abrégé* and the royal collection.

⁴⁷ Philippe Junod made us aware of other instances in which the official doctrine was different from the expression of tastes: Reynolds was very critical of Rembrandt in his conferences, but very much influenced by him in his paintings.