Combinatorial Greetings from Georges Perec

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Abstract

Georges Perec published a collection of short notes in the genre of postal cards. He made 3^5 or 243 cards that appeared occasional, but indeed followed strict combinatorial restrictions. These cards can be seen as one of the earliest examples of writing with the help of artificial intelligence, in Perec's case, manually organized and executed.

Introduction

In 1978, Georges Perec created a combinatorial set of postcards *Deux Cent Quarante-Trois Cartes Postales en Coulers Veritables*, dedicated to Italo Calvino. Firstly, the postcards appeared in a small art magazine, LE FOU PARLE, published by Jacques Vallett. In 1989, seven years after Perec's death, the same text was published in the collection *L'Infra-Ordinaire* [7], and in 1999, Gallimard edition released a CD *Machines à Ecrire*, designed and produced by Antoine Denize under the editorship of Bernard Magné [4]. The CD contains detailed descriptions, full texts and games on three works: *Cent Mille Milliards de Poèmes* and *Un Conte à Votre Façon* by Raymond Queneau and *243 Cartes Postales en Couleurs Véritables* by Georges Perec, as well as a number of diverse works of the "OULIPO Universe."

Similar to Queneau who combined the lines of ten sonnets to make *Cent Mille Milliards de Poèmes*, Perec wrote *243 Cartes Postales en Couleurs Véritables* by combining simple text elements in strict order. Claude Berge, also a member of OULIPO, defined this method as "combinatorial literature" and followed its history from Leibniz's *Dissertation de Arte Combinatoria* and Harsdorffer's distich as well as Potocki's and Eugene Sue's novels to numerous OULIPO's works [1]. Perec wrote a combinatorial set assuming a postcard to be a short note on a few simple subjects, combining these notes together and rearranging them by strict rules. In this way, he made hundreds of texts indistinguishable from usual postcards. Perec had not expressed his intention on creating the set of combinatorial postcards, though it was totally in line with OULIPO's concept of creating a fun word game and a technique demonstrating potentiality of the language [5].

Lists of the Postcards

Here are the first twelve of 243 Perec's postcards in my translation into English:

1. We camp near Ajaccio. The weather is wonderful. Eating well. Got a sunstroke. Firm kisses.
2. We planted our tent near Utica. Idleness and sleep. We go to the beach. I made many friends. Firm kisses.
3. We are in England. Calm and quiet. We go to the beach. I ride a horse. Thinking about you.
4. We arrived in the USA. We let ourselves relax. We have not eaten that badly before. Got a sunstroke. Our thoughts are with you.
5. Now in the Alcazar hotel. Sunbathing. Oh, how good it is here! I made a bunch of friends. We return on 7th.
6. Now in the Underwald hotel. The weather is good. Eating well. I go to excursions. We are back Sunday, at 8 pm.
7. Warmest regards from Inverness. The weather is not bad for this time of year. Proper nutrition. We got calf muscles. A thousand thoughts.

8. The latest news from Reggio Calabria! Idleness on the beach. We are the whole band. Not forgetting about you.

9. We travel without hurry through Illyria. Beautiful beaches. Rides on mules. A thousand kisses.

10. We sail around Ile Rousse. We let ourselves sunbathe. Food is great. I got one of those sunstrokes! Kisses and everything.

11. We reached the Intercontinental. Sauna. Solarium. Delight! A bunch of chicks. A thousand kisses.

12. Pension Riva Bella is near. The weather is good. Great food. I do water skiing. Hugs.

<...>

These short notes look like random postcards sent from various locations. I will demonstrate that the postcards are not random, or *aleatory* as OULIPO called it, but made by George Perec in a strict combinatorial order.

Main Ingredients of a Postcard

Perec introduced several combinatorial techniques to make hundreds (243) of postcards sent from dozens places of the world, not even bothering himself to visit them all. Possibly, the imaginable postcards undistinguished from the usual ones were Perec's combinatorial answer to Italo Calvino's descriptions of the invisible cities [2].

Assuming that all ordinary postcards look similar ("we are here", "it's so hot", "we bathed a lot," "we had pancakes with caviar for breakfast," "hug and kiss"), Perec defined five main components of a postcard:

1) location – where the sender is located;

2) activity – what he is doing there, or doing nothing because he is on vacation;

3) entertainment and satisfaction – telling a recipient how good he feels there;

4) specific mention – here one can share his thoughts, experiences, adventures;

5) and final greeting.

This is how a postcard looks like, sent from every city. Then Perec expanded each point of his scheme.

Listing and Arranging the Ingredients

For location, Perec had three specifications: it could be a city, a region or a hotel, denoted with the letters: A – city, F – region, K – hotel. Activities on vacation were the simplest: B – watching the weather, G – siesta, L – tanning or taking sunbaths. Entertaining and satisfactions came from C – eating, H – going to the beach, and M – simply relaxing. Specifically mentioned experiences were to D – sunstroke or sunburn, I – active leisure, and N – making friends. Finally, three forms of farewell included E – kisses and hugs, J – a promise to return soon, and O – greetings to the addressee.

Perec compiled them in a table, three in a row, to define the rules of rearranging them:

Table 1: *List of postcards ingredients.*

Locations	A: City	F: Region	K: Hotel
Activities	B: Weather	G: Siesta	L: Tanning
Entertainments	C: Food	H: Beach	M: Rest
Special mentions	D: Sunstroke	I: Active rest	N: Friendship
Farewells	E: Kisses	J: Return	O: Thoughts

Looking at Table 1, it is obvious that Perec placed the code letters for each of five categories (location, activity, etc.) in rows from top to bottom, with each row including the code letters for three options in the category. He reused this method of rearranging "vertical" and "horizontal" order of elements throughout the project.

By Perec's definition, a postcard should consist of a set of five phrases, choosing one letter for a phrase in each row: one location, one activity, one entertainment, one special mention, and one farewell formula. In the first row, there are three letters, which makes 3 options, in the second row, another 3, etc., and in total, there are 3 * 3 * 3 * 3 * 3 = 243 postcards. A chosen order of letters defines a specific combination, for example, ALCDO means that the card is about a city, tanning, food, sunstroke, and return home.

Next, Perec listed all variants of code letters in a traditional order: keeping four elements intact (ABCD), he listed all possibilities for the fifth element (E, J, O); then changed the fourth element by one letter (ABCI) and listed all possibilities for the fifth element (E, J, O), etc. Perec wrote these combinations in 6 columns of 27 lines from top to bottom. Then he repeated the described above method of rearranging the elements by numbering these combinations of code letters in "horizontal" order:

Table 2: *Combinations of ingredients for all postcards.*

1. ABCDE	2. AGHNE	3. FGHIJ	4. FLCDJ	5. KLMNO	6. KBCIO
7. ABCDJ	8. AGHNJ	9. FGHIE	10. FLCDE	11. KLMNE	12. KBCIE
13. ABCDO	14. AGHNO	15. FGHIO	16. FLCDO	17. KLMNJ	18. KBCIJ
<...>	<...>	<...>	<...>	<...>	<...>

These are all 243 variants, but they are not yet filled with the content. Next, Perec created the content for the postcards.

Name and Order of Mentioning of Locations

There would be 81 times when each of the location options (city, region, hotel) would appear in 243 cards. In order to avoid repetition of the cities in the postcards, Perec made a table of 81 city names, placing them in rows of three, one for each letter of the alphabet plus one extra randomly chosen letter. The resulting table had three columns, each with 27 names from A to Z. But the order of reading was again different, this time numbered by columns, first the first twenty-seven names from A to Z, then other next twenty-seven names from A to Z, and the last names from A to Z:

Table 3: *The list of the cities (beginning).*

1. **A**jaccio	28. **A**ntibes	55. **A**rs en Re
2. **B**astia	29. **B**ercq	56. **B**righton
3. **C**alvi	30. **C**argese	57. **C**adaques
4. **D**eauville	31. **D**oubrovnik	58. **D**raguignan
<...>	<...>	<...>

Perec repeated the procedure for the names of the regions and for the names of the hotels:

Table 4: *The list of the regions (beginning).*

1. **A**ngleterre	28. Cote d'**A**zur	55. Cote **A**tlantique
2. **B**elgique	29. **B**aleares	56. Costa **B**rava
3. **C**orse	30. **C**hypre	57. **C**yclades
4. **D**ahomey	31. **D**almatie	58. **D**jerba
<...>	<...>	<...>

Table 5: *The list of hotels (beginning).*

1. **A**lcazar	28. **A**lhambra	55. **A**driatica
2. **B**eau Rivage	29. de la **B**aie	56. **B**ella Vista
3. **C**arlton	30. **C**roisette	57. **C**heval d'Or
4. **D**ardanella	31. **D**unes	58. Quentin **D**urward
<...>	<...>	<...>

Perec demonstrated his creativity, proposing unusual names: the city of Xenos, a wanderer or a stranger in Greek; Hotel Xanthippe, named after the grumpy wife of Socrates. Hotels were also named after Oscar Wilde; after Quentin Durward, a character of Walter Scott novel; after Jugurtha, a king of Nuami; after Xenophile, maybe he was an ancient Greek philosopher or the hotel owner who loved foreigners.

These three lists of 81 locations were still not the final order in which they appeared in the postcards. Perec used another method to scramble the order, similar to the one he used in his novel *La Vie: Mode d'Emploi* [6]. He placed the names for each three types of locations in a 9 x 9 table and went by it in the sequence of chess knight moves, stepping on each cell once and once only. Usual chess knight goes by 8 x 8 table, though Perec have found such a sequence for a 9 x 9 table:

Table 6: *9 x 9 table with a chess knight moves.*

1	48	63	72	31	46	61	14	75
64	71	32	47	62	13	74	45	60
33	2	49	70	73	30	59	76	15
50	65	68	3	12	17	44	29	58
67	34	5	18	69	28	57	16	77
20	51	66	27	4	11	78	43	40
35	26	19	6	23	56	41	10	79
52	21	24	37	54	81	8	39	42
25	36	53	22	7	38	55	80	9

This determined the order of appearance of locations in the postcards: 1, 48, 63, 72... As seen from the first line of Table 2, the first toponyms (location names) to appear in the cards should be: A A F F K K A A... By replacing the code letters by the specific names of the city or region or hotel as defined by Tables 3-5, one can see the resulting order of toponyms: 1. Ajaccio (the name of the city number 1 in Table 3); 2. Utica (the name of the city number 48 in Table 3); 3. Angleterre (the name of the country number 1 in Table 4), 4. USA (the name of the country number 48 in Table 4), 5. Alcazar (the name of the hotel number 1 in Table 5), 6. Underwald (the name of the hotel number 48 in Table 5), etc. This is the almost final list of all cities, countries and hotels that the traveller visited and wrote his postcards about.

Introducing the Location and Shuffling the Introductions

After choosing the exact order of locations, Perec found a way to introduce them in the following phrases numbering from 1 to 9:

Table 7: *The list of introduction phrases.*

1. We camp near ...	4. We write you from ...	7. A couple of words from ...
2. We have landed at ...	5. Warmest regards from ...	8. Latest news from ...
3. Here we are in ...	6. Now in ...	9. We planted our stakes not far from ...

To determine the sequence of the appearance of these introduction phrases in the postcards, Perec used another well-known combinatorial method, a magic square that is a square table where the sum of the numbers in each row and in each column is the same. Perec used the following table:

Table 8: *3 x 3 magic square.*

1	9	5
8	4	3
6	2	7

This is not a perfect magic square as the sums in the diagonals are not the same.

Table 8 contains nine numbers, but for all locations of a specific type, Perec needed eighty-one numbers, so he combined the numbers of the magic square first horizontally, 195 843 627, then vertically, starting with the right column, 537 942 186, and finally by the diagonals, 189 645 237, producing a sequence of twenty seven numbers.

Table 9: *Triple reading of the magic square numbers.*

1	9	5	8	4	3	6	2	7
5	3	7	9	4	2	1	8	6
1	8	9	6	4	5	2	3	7

Perec wrote them in three lines, one above the other (as in Table 9), and read together in three boustrophedon (oxen way) sequences: firstly the top row from left to right, then the middle row from right to left and finally the bottom row from left to right: 195 843 627 681 249 735 189 645 237. The reverse direction of reading gave him: 732 546 981 537 942 186 726 348 591. Finally, a vertical boustrophedon: 151 839 579 698 444 523 612 283 767. However, in accordance with OULIPO's *clinamen* rule of intentional disturbance of the rules, Perec mixes the nine introductory phrases with others, "we are flipping through ...", "we are studying ...", "traveling by ...", "crossing ...", and so on.

The Rest of the Text and Final Rearrangement

For the next sentences of the postcards, Perec followed the same strict combinatorial rule for the subjects: weather, siesta, tanning; food, beach, rest; sunstroke, active rest, friendship; kisses, return, thoughts, and filled them with content in accordance with the location. That is, for Finland, he mentioned "midnight sun", for Hungary, "Lake Balaton," etc. He skipped some names listed in the Tables 3-5 (Motel Yoyo, Hotel Troglodytes, etc.), whereas others names appeared from nowhere: Berghof aka Hitler's residence in the Bavarian Alps; Der Zauberberg as the original title in German of Thomas Mann's novel *Magic Mountain*. Options for kinds of entertainments and satisfactions on holidays were rather monotonous: it was tanning, eating, sleeping, and getting sunburn (26 sunburns and sunstrokes for 243 cards). On the contrary, the kinds of "specific mentions" were many and varied.

A reader can now check the list of postcards at the beginning of this paper to make sure it strictly follows the described procedure. It is not the final order of publication, as Perec rearranged the cards one more time by pulling every fifth card from this list: 5, 10, 15, etc. As 243 does not divide by five, in the end, he got all two hundred and forty-three cards. This was the order by which the postcards appeared in the publication.

Discussion and Conclusion

By reading all 243 postal cards, one imagines the sender has travelled a lot around the world by French cities and regions, as well as other countries of Europe, South America, North America, and Asia. He travelled by land and by sea, rode horses, camels, mules and donkeys... He was sunbathing, swimming,

boating, water skiing, playing tennis and golf, volleyball and scrabble... All these happened in a virtual world of imagination and thorough combinatorial writing. A person saw 243 places in a dream and sent imaginary postcards to imaginary friends. If Italo Calvino in *Invisible cities* [2] made an allusion to Marco Polo's travelogue [8] and a poem *Khubla Khan* by Coleridge [3] visualising the cities he had never visited, Perec went further in reifying the imaginary places by sending combinatorial postcards from them all.

There are diverse practical benefits from Perec's combinatorial text. These cards can be seen as one of the earliest examples of writing with a help of artificial intelligence, for this time, manually organized and executed. In order to compose all 243 cards, Perec had to come up with the idea, prepare eighty one names for each type of a location, combine them in a certain way, add some more tricks to confuse the addressee, and as by magic, unique postcards appeared as if written from the real spots. Even the final greetings, all personal expressions of hugs and kisses, were combined by a strict rule.

On the other hand, these cards can be an instrument of learning about simple phrases of a foreign language, the basics of combinatorics, and looking at the CD *Machine á Ecrire* and a game developed by Antoine Denize [4], they can be a tool to learn the basics of color separation, the basics of design, and the basics of programming.

The number of Perec's addresses is growing. Originally, it was just an idea, then a journal publication for limited audience, then a chapter in the book, then a CD still available on Amazon. Today it can be a computer game or an applet. Sent 25 years ago, Perec's postcards fly over the world and reach new readers.

References

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