MAPPING METHODS OF POLITICAL AND ELECTORAL REALITIES AT THE WORLD LEVEL

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Résumé: *L'ouvrage se propose de mettre en évidence les modalités de cartographie des quelques éléments politiques and électorales (l'appartenance des quelques pays a diverses organisations mondiales, continentales, régionales, la typologie des pays avec/sans littoral, la distribution chrono-spatiale des démocraties électorales, du niveau de la démocratie dans le monde, du niveau des droits civiles and des libertés politiques, du niveau de la liberté de la presse, de la présence au vote, des différents orientations politiques et autres). Ils sont relevées, aussi, des difficultés liées par la création et la complétion de la base statistique (plus fréquent, a cause de l'absence ou de l'inaccessibilité aux informations, de la variabilité des limites administratives, ou/et du statut des divers entités politiques), de l'utilisation, s'il est possible, du même niveau politique pour la cartographie (la grande variabilité tant du statut des divers entités politiques : colonies, protectorats, dépendances, états indépendantes ou/et quasi-indépendantes, quant leur limites) et du groupement des variables électorales dans les principales familles politiques (a cause des quelques noms qui ne sont pas liées avec l'orientation politique réelle des ces formations politiques, spécialement en Afrique, Asie ou dans l'Amérique Latine, de la présence des formations politiques des minorités ethniques et confessionnelles, du passage, pendant du temps, des quelques partis politiques d'un orientation a l'autre ou a cause de la présence des plusieurs formations avec des orientations diverses dans la même alliance, coalition, etc.).*

Key words: *representation, political and electoral realities, chrono-spatial distribution, hierarchical ascendant classification;*

Introduction

We aim to present several ways of mapping political and electoral realities (membership of countries from various world, continental of regional organizations, the typology of the state with sea coast or not, the chrono-spatial distribution of electoral democracies, of the level of democracy in the world, the level of political rights and political liberties, the level of press freedom, the voter turnout, the different political orientations and others).
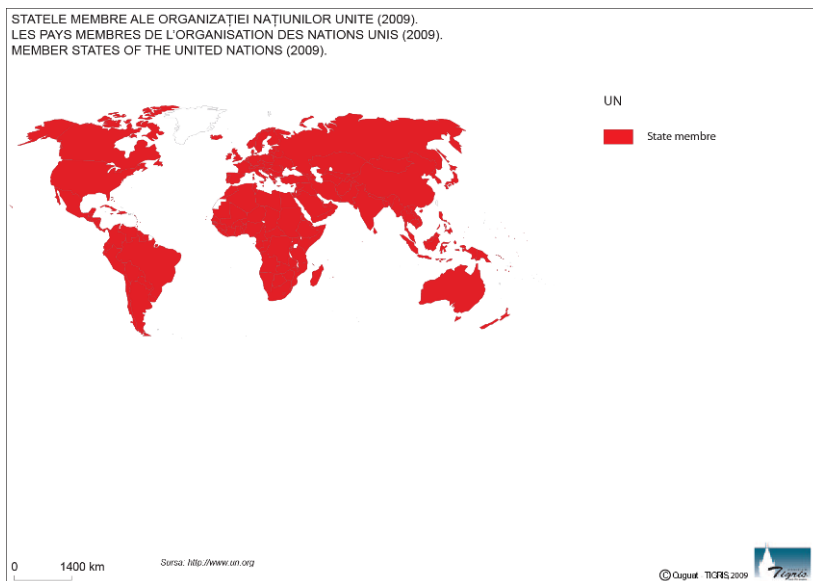
This intension was hit by several problems related to the variability of the borders and of the number of independent countries over time, or the difficulty of framing the political groups in some regions and countries in the political families.
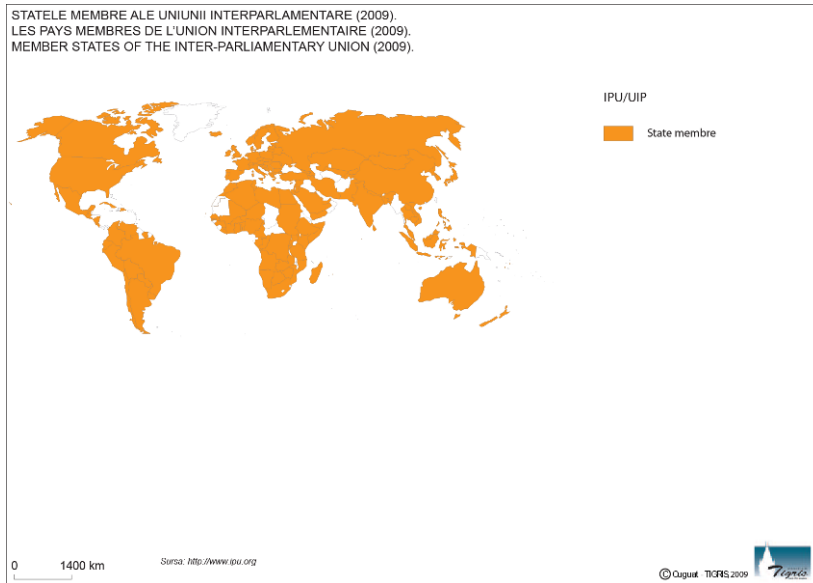
The working methodology included in the first stage, the documentation, made entirely from various electronic sources: Center for Systemic Peace, Freedom House, the organization Reporters sans Frontières, Central Intelligence Agency, the Inter-Parliamentary Union, the United Nations, Transparency International, the Fund for Peace, the United Nations Development Program, the *Foreign Policy* magazine, the Institute for Democracy and Electoral Assistance (International IDEA), the national electoral authorities, various regional organizations (European Union, African Union, Central American Integration System, etc.). Data were introduced and processed in Microsoft Excel file type.

The second phase was the mapping of these realities. To do this, it was necessary to draw in Adobe Illustrator, various world maps, taking as the starting, the end of the eighteenth century, exactly 1790, when the French Revolution was underway and appeared the young independent country called United States of America. The methods used for mapping was the colors beaches and the hierarchical ascendant classification (to make maps with this method was necessary to bring the data in percentage format). The program used for mapping is Philcarto.
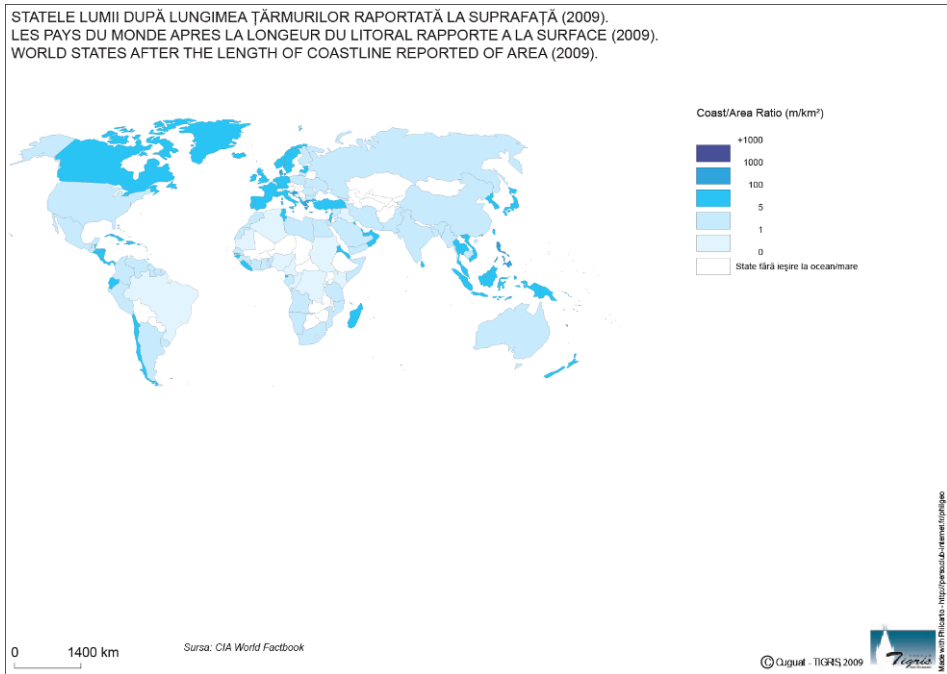
Mapping the political-electoral realities at the world level

The representation of various organizations on the world map (UN, IPU, WTO, various regional organizations) was made by the method of colors beaches, after we noted, in the database, with 1 the Member States of these organizations.

STATELE MEMBRE ALE UNIUNII INTERPARLAMENTARE (2009).
LES PAYS MEMBRES DE L'UNION INTERPARLEMENTAIRE (2009).
MEMBER STATES OF THE INTER-PARLIAMENTARY UNION (2009).

IPU/UIP

State membre

0   1400 km

Sursa: http://www.ipu.org

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If in the case of United Nations and of the Inter-Parliamentary Union was somewhat simple, because in the table appeared the same number to each state, in the case of mapping the Member States of the World Trade Organization, we given different figures for the special status of some countries (outside the Member States, exist the observers too). After the mapping with Philcarto program, in Adobe Illustrator we replace the figures with the text, meaning the status of such political entities.

STATELE LUMII DUPĂ LUNGIMEA ȚĂRMURILOR RAPORTATĂ LA SUPRAFAȚĂ (2009).
LES PAYS DU MONDE APRES LA LONGEUR DU LITORAL RAPPORTE A LA SURFACE (2009).
WORLD STATES AFTER THE LENGTH OF COASTLINE REPORTED OF AREA (2009).

Coast/Area Ratio (m/km²)

+1000
1000
100
5
1
0
State fără ieșire la ocean/mare

0   1400 km   Sursa: CIA World Factbook
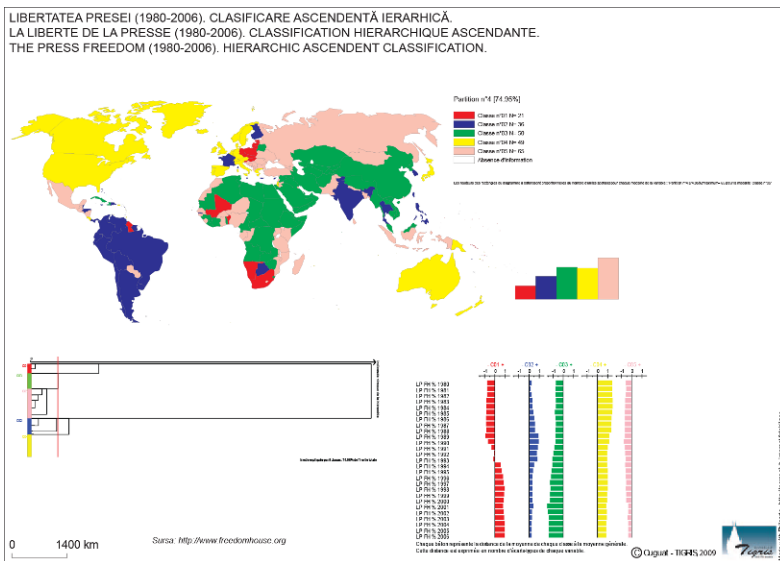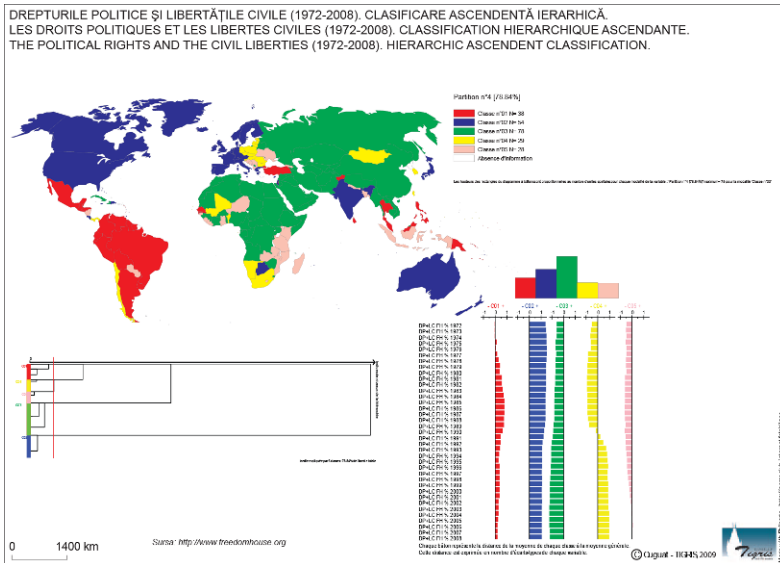
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        The representation of geographical features with geopolitical importance
(the countries with sea line, the length of the coast) was achieved by the same
method, and we used different shades of blue, depending on how extensive is the
coast line, or how big is the ratio between the length of the coast and the country
surface.

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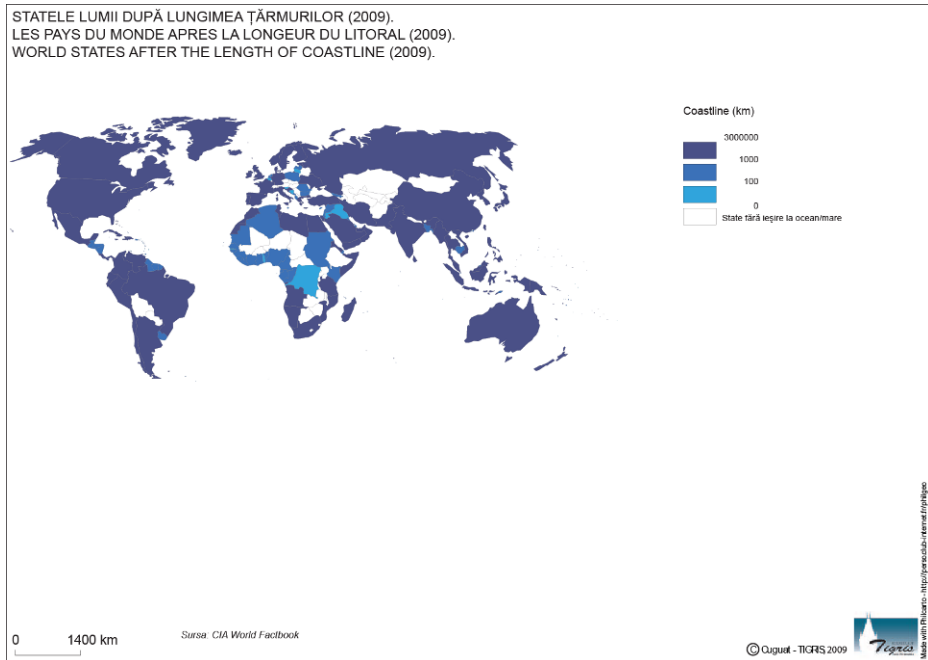
To represent the level of democracy (according to the Center for Systemic Peace, „George Mason" University, United States) we used the same method of colors beaches, varied according to the „notes" of American data (from very dark blue for the countries where the democracy is at its highest level, to the pale blue, used in the case of the „oscillating" countries between being democratic or not, to orange, used for dictatorial, authoritarian, absolutist regimes, etc.). The database, extended over more than two centuries, allows highlighting the chrono-spatial distribution of this indicator, for a period covering the whole modern and contemporary times.

NIVELUL DEMOCRAȚIEI (2008).
LE NIVEAU DE LA DEMOCRATIE (2008).
THE LEVEL OF DEMOCRACY (2008).

Nivelul democrației

	10
	7
	4
	1
	-1
	-4
	-7
	-10
	lipsă date

Sursa: http://www.systemicpeace.org

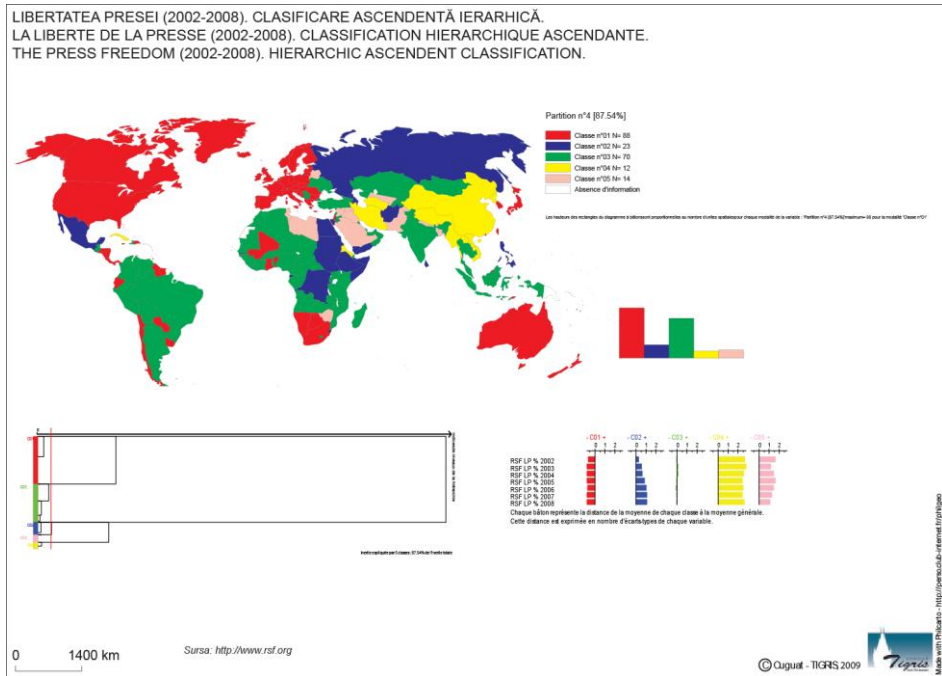0   1400 km

© Cuguat - TIGRIS 2009
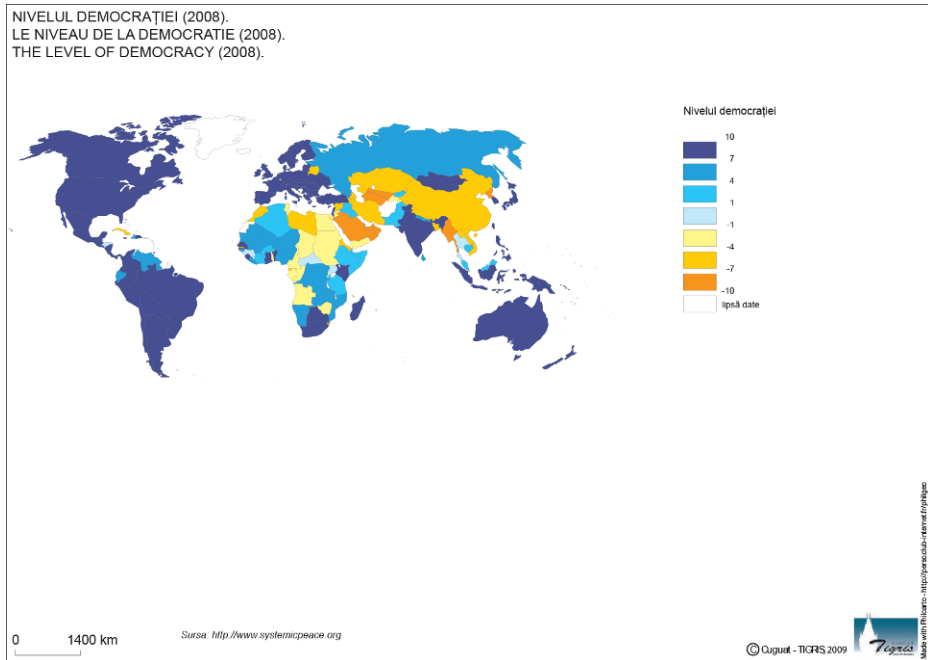
The representation of political rights and civil liberties (according Freedom House data) can be achieved by both methods, using colors beaches (with shades of green for the level considered „free" after the terminology of the cited organization, orange for the level „partly free" and red, for the case of „not free" countries) for the different notes accorded annually by these organization, but for chrono-spatial representation of these indicator we can used the hierarchical ascending classification. Knowing that this method requires the transformation of notes to 7 (maximum) to 1 (at „zero" political rights) as a percentage, we using prior to mapping, a mathematical trick, which we converted the notes in the percentages. Thus, note 7 are 100 % and the lowest percentage values are found were the notes going to 1. Since the notes for press freedom, accorded by the same organization, are in the same scale, we applied the same method. Please note that the shades for every class are chosen automatically by the program without any relation to the status of countries in this class.

DREPTURILE POLITICE ȘI LIBERTĂȚILE CIVILE (1972-2008). CLASIFICARE ASCENDENTĂ IERARHICĂ.
LES DROITS POLITIQUES ET LES LIBERTES CIVILES (1972-2008). CLASSIFICATION HIERARCHIQUE ASCENDANTE.
THE POLITICAL RIGHTS AND THE CIVIL LIBERTIES (1972-2008). HIERARCHIC ASCENDENT CLASSIFICATION.

LIBERTATEA PRESEI (1980-2006). CLASIFICARE ASCENDENTĂ IERARHICĂ.
LA LIBERTE DE LA PRESSE (1980-2006). CLASSIFICATION HIERARCHIQUE ASCENDANTE.
THE PRESS FREEDOM (1980-2006). HIERARCHIC ASCENDENT CLASSIFICATION.

The press freedom (as the professional organization Reporters sans Frontières), be treated a little differently. Since that score, in this case is between 120 (for the countries without freedom of press) and about 10 (in the case with full freedom of journalists), we converted these scores as percentages (120 points have become 100 %), the map below expressing, by the deviation from the mean of each

class, the freedom of the press (in the first class, where the deviation is negative, because the values – absolutes and in percentages – are very small) or the absence of this indicator (e.g. the fourth class).

LIBERTATEA PRESEI (2002-2008). CLASIFICARE ASCENDENTĂ IERARHICĂ.
LA LIBERTE DE LA PRESSE (2002-2008). CLASSIFICATION HIERARCHIQUE ASCENDANTE.
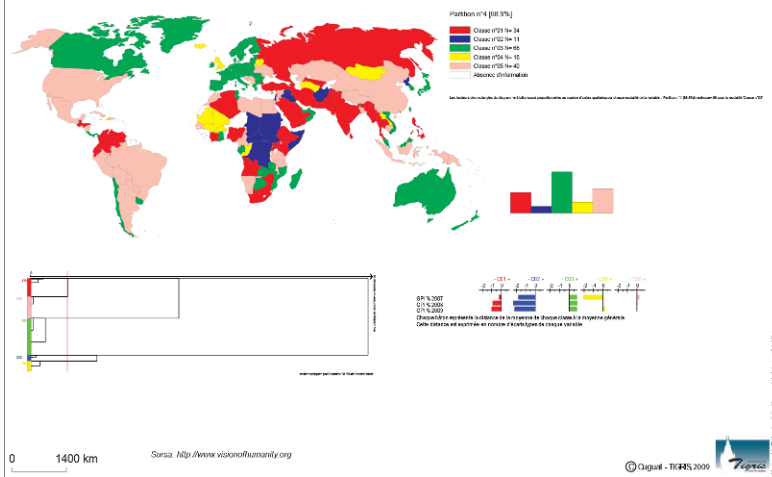THE PRESS FREEDOM (2002-2008). HIERARCHIC ASCENDENT CLASSIFICATION.

The same approach was employed to represent the Corruption Perception Index (according the data of Transparency International), the Global Peace Index (according the data of Vision of Humanity), the Human Development Index (after the data of the United Nation Development Program), or the Failed State Index (after the data published by the Fund for Peace and *Foreign Policy* magazine).
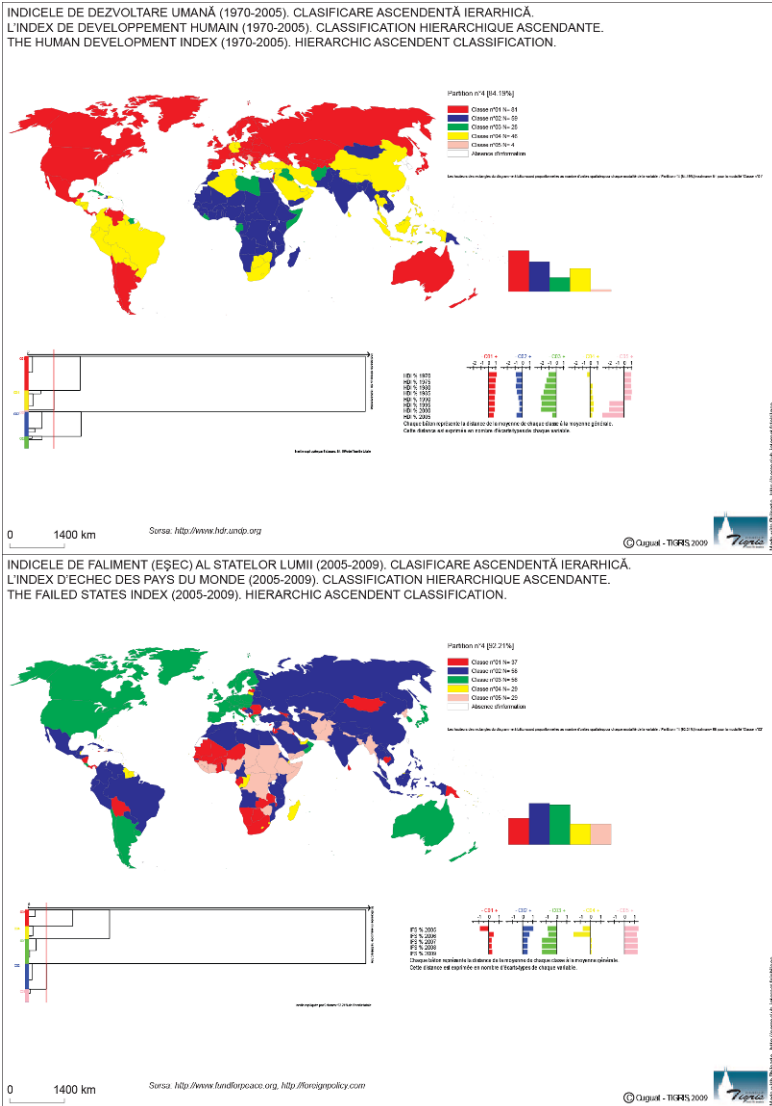
INDICELE DE PERCEPȚIE A CORUPȚIEI (1995-2008). CLASIFICARE ASCENDENTĂ IERARHICĂ.
L'INDEX DE PERCEPTION DE LA CORRUPTION (1995-2008). CLASSIFICATION HIERARCHIQUE ASCENDANTE.
THE CORRUPTION PERCEPTION INDEX (1995-2008). HIERARCHIC ASCENDENT CLASSIFICATION.

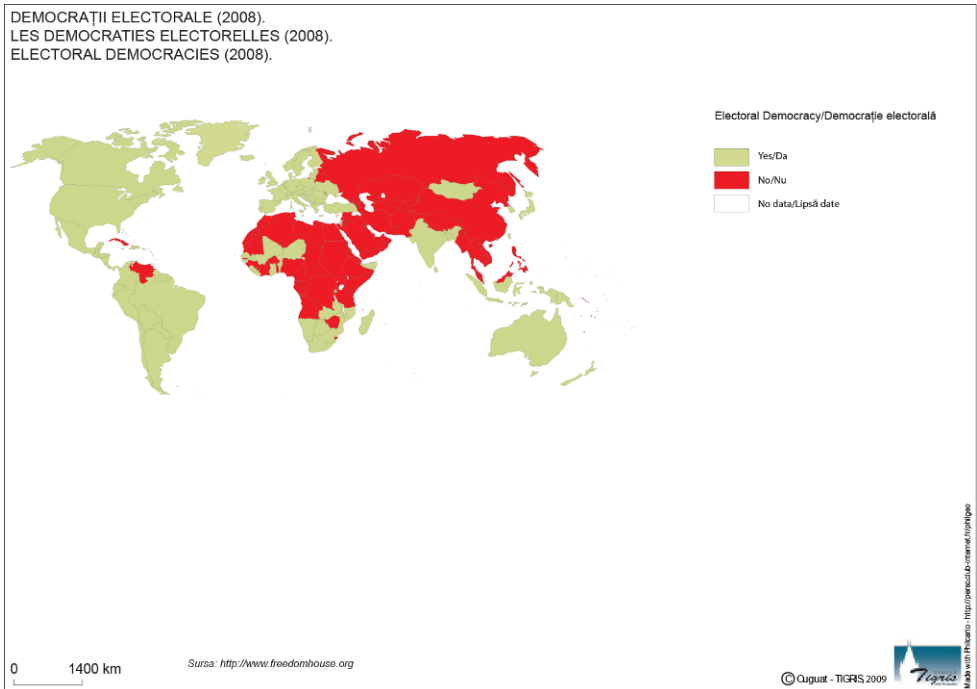
Sursa: http://www.transparency.org
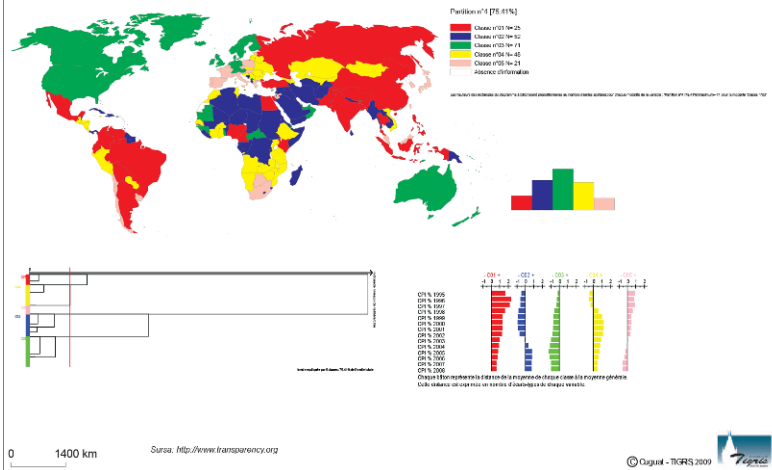
INDICELE PĂCII MONDIALE (2007-2009). CLASIFICARE ASCENDENTĂ IERARHICĂ.
L'INDEX DE LA PAIX MONDIALE (2007-2009). CLASSIFICATION HIERARCHIQUE ASCENDANTE.
THE GLOBAL PEACE INDEX (2007-2009). HIERARCHIC ASCENDENT CLASSIFICATION.

Sursa: http://www.visionofhumanity.org

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INDICELE DE DEZVOLTARE UMANĂ (1970-2005). CLASIFICARE ASCENDENTĂ IERARHICĂ.
L'INDEX DE DEVELOPPEMENT HUMAIN (1970-2005). CLASSIFICATION HIERARCHIQUE ASCENDANTE.
THE HUMAN DEVELOPMENT INDEX (1970-2005). HIERARCHIC ASCENDENT CLASSIFICATION.

Sursa: http://www.hdr.undp.org

INDICELE DE FALIMENT (EŞEC) AL STATELOR LUMII (2005-2009). CLASIFICARE ASCENDENTĂ IERARHICĂ.
L'INDEX D'ECHEC DES PAYS DU MONDE (2005-2009). CLASSIFICATION HIERARCHIQUE ASCENDANTE.
THE FAILED STATES INDEX (2005-2009). HIERARCHIC ASCENDENT CLASSIFICATION.

Sursa: http://www.fundforpeace.org, http://foreignpolicy.com
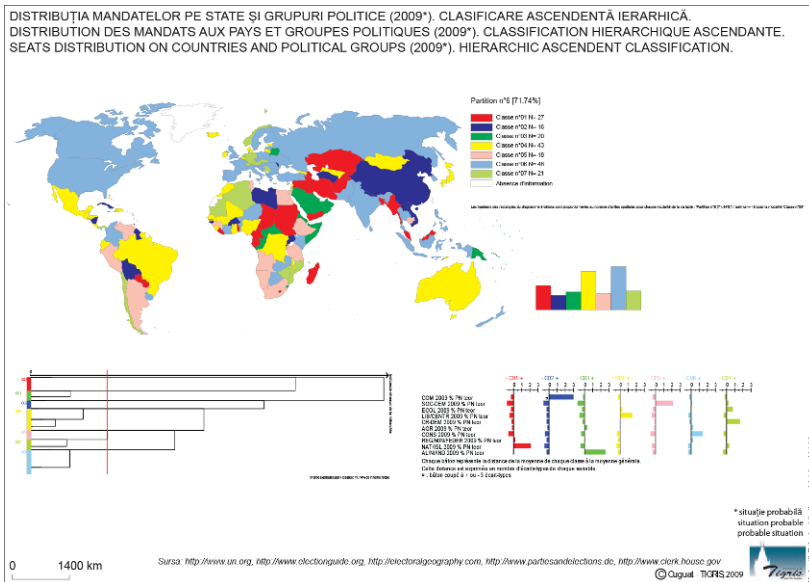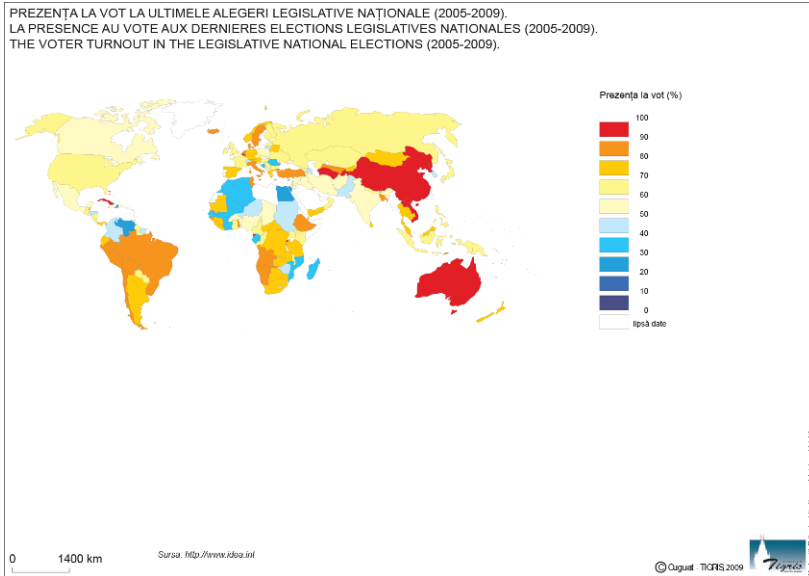
        In the case of representation for the electoral democracies in the world
(again, according the data of Freedom House), we created a table in which noted
with 1 the countries that enter in these category and with 2, the others. Result the
representations such as below.

DEMOCRAȚII ELECTORALE (2008).
LES DEMOCRATIES ELECTORELLES (2008).
ELECTORAL DEMOCRACIES (2008).

Electoral Democracy/Democrație electorală

Yes/Da
No/Nu
No data/Lipsă date

Sursa: http://www.freedomhouse.org

0   1400 km

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        The voter turnout in the parliamentary elections (after the data of the Institute for Democracy and Electoral Assistance, based in Stockholm), received of the method of colors beaches, using a color scale goes according to decreasing intensity of the phenomenon (i.e., with increasing the percentage of absenteeism at the polls) from „hot" colors (dark red) to „cold" colors (dark blue).

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PREZENȚA LA VOT LA ULTIMELE ALEGERI LEGISLATIVE NAȚIONALE (2005-2009).
LA PRESENCE AU VOTE AUX DERNIERES ELECTIONS LEGISLATIVES NATIONALES (2005-2009).
THE VOTER TURNOUT IN THE LEGISLATIVE NATIONAL ELECTIONS (2005-2009).

DISTRIBUȚIA MANDATELOR PE STATE ȘI GRUPURI POLITICE (2009*). CLASIFICARE ASCENDENTĂ IERARHICĂ.
DISTRIBUTION DES MANDATS AUX PAYS ET GROUPES POLITIQUES (2009*). CLASSIFICATION HIERARCHIQUE ASCENDANTE.
SEATS DISTRIBUTION ON COUNTRIES AND POLITICAL GROUPS (2009*). HIERARCHIC ASCENDENT CLASSIFICATION.

Finally, the distribution of seats on political families (after the data from the national electoral institutions and/or the sites with a regional dimension in Europe, America, Africa) has received, again, the use of hierarchical ascendant classification, which can be used not only to highlight the temporal dynamics of one

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or more indicators, but also the representation at the same time, of several variables. Thus, the positive deviation from the mean (right) shows, for each class, the presence, than the world average, of one or more variables (in our case, the percentage of seats belonging to a certain political family).

Conclusions

The presented methods allow a synthetic representation, easy to explain, for the different political and electoral realities worldwide. Thus, the representations in the colors beaches highlighted a single variable at one moment, allowing the observation of spatial differentiation (related to the status of countries in various world and/or regional organizations, or the affiliation in a particular category of countries in terms of view of political rights and civil liberties, of press freedom, etc.), their sequence, if they are integrated in „movies", favoring the observation of changes in the spatial distribution of analyzed phenomena.

Instead, the hierarchical ascendant classification allows the representation of a single variable for a certain period of time (the press freedom, the political rights and civil liberties, the Corruption Perception Index, the Human Development Index, etc.), or of several variables, either at a single moment (as if the share of the seats by political families) or for a specific period of time. If the method of colors beaches allows the details observing at a moment and the changing of the images give the measure of changes in time and in space, the hierarchical ascendant classification highlights, in a single representation, in a synthesis, the peculiarities of each class, of each group of countries which enter into them.

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