

REDUCTION OF ECONOMIC-FINANCIAL EXPOSURE OF THE STATE AND PROTECTION OF HUMAN LIVES

Model for the prevention and mitigation of damages to people and properties through an insurance coverage

FRENCH EXPERIENCE IN HAZARDS (EARTHQUAKES AND OTHERS) AND INSURANCE

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Parallel presentation between risk in France and me

Geomorphologist, I work as **Master of Conferences** in Constantine University (Algeria 1972 -1982) then in Poitiers University (1982 – 2010).

FOR ME, AS GEOGRAPHER TERRITORY MUST BE USED WITH SUSTAINABLE RULES.

1970, two avalanches touch the Alps : Val d'Isère in february and Plateau d'Assy in april



← Val d'Isere



Plateau d'Assy →

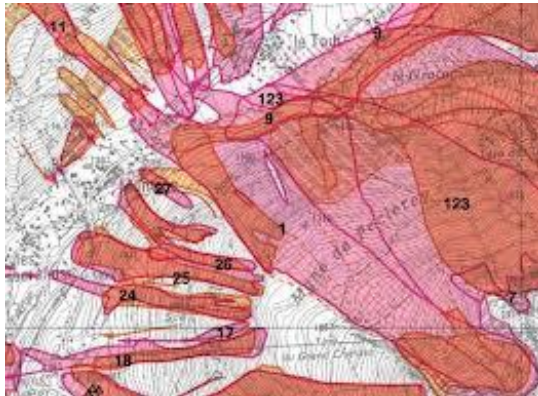
2 catastrophes in relationship with the development of construction in skiing areas.

Hazard cartography : Snow and Avalanches, ZERMOS

Then, the Government launches the cartography in the Alpine Area with :

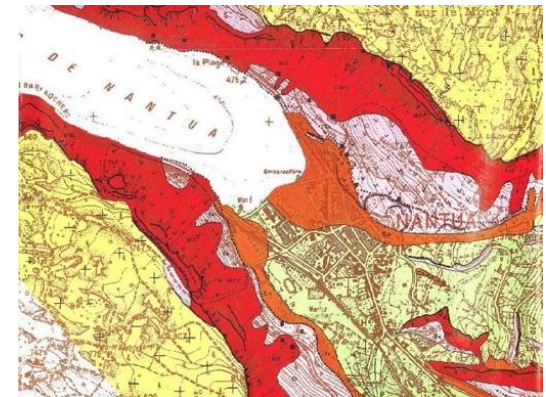
- Cartography of Snow and Avalanches and

- ZERMOS cartography



Avalanches cartography
← in Chamonix Valley.

ZERMOS cartography in
Jura mountain →
Green = good place
Orange = medium
Red = bad place



ZONE DE RISQUES



ZONES APPAREMMENT NON SOUMISES A DES RISQUES DANS L'ETAT ACTUEL.



ZONES EXPOSEES A DES RISQUES PEU IMPORTANTS.



ZONES EXPOSEES A DES RISQUES DE DEGRE MOYEN (EPANDAGE TRES EXCEPTIONNEL DANS LE DOMAINE ROCHEUX, DYNAMIQUE VARIABLE A L'ETÉ, DANS LE DOMAINE DES MATERIAUX MEUBLES).



ZONES EXPOSEES A DES RISQUES IMPORTANTS (PHENOMENES GENERALEMENT POTENTIELS DANS LE DOMAINE ROCHEUX, EPANDAGE EXCEPTIONNEL).

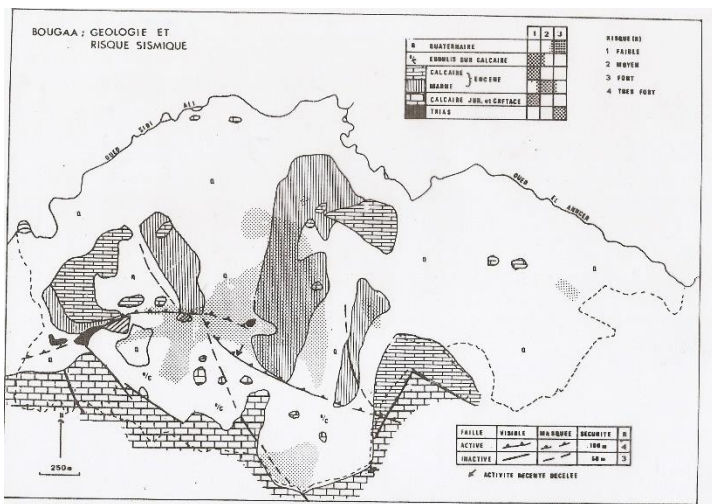


ZONES EXPOSEES A DES RISQUES DECLARES TRES IMPORTANTS (DOMAINE ROCHEUX EXCLUSIVEMENT).

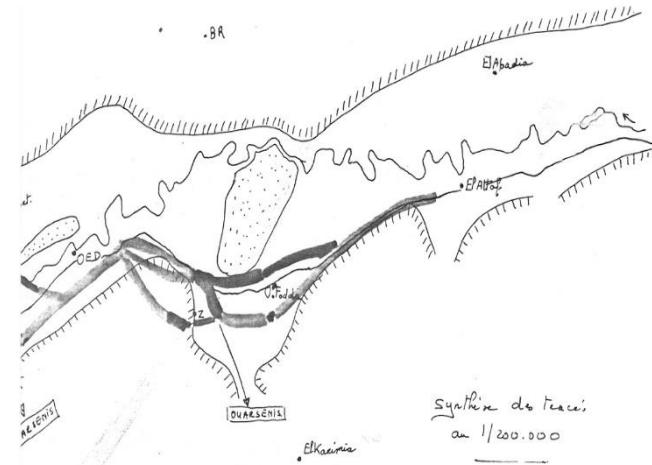
In all these cartographies, red is very present and normally constructions are prohibited, so Mayors asked the destruction of the maps and the stop of the cartographies!!!!

I made in Algeria 2 works with these methods

One in the Eastern Tell area, in BOUGAA, in the epicentral area of the 1949' Kherrata earthquake (ZERMOS cartography including e.q. risk and used UNDR0 rules) and the other in the Chelif Valley (Orléansville 1954' e.q. and El Asnam 1980' e.q.)



As presented in ZERMOS cartography,
 1 = low risk = green 2 = medium risk = yellow
 3 = high risk = orange 4 = very high risk = red
 The risk is relative because it is only a relative scale between grounds (measurements were rare in these times. (Data scale = UNDR0 booklets)



This work was made for highway in the Chelif Valley between El Attaf at East and Oued Rhiou at west. I proposed a layout in relationship with various risks (e.q., flood, landslide). According to the place, it was one or several solutions with various levels of risk (dark = red : high risk and more clearly = orange or yellow).
 (Work made in summer 1983, french – algeria cooperation).

1980' : changing Gouvernement and politics : insurance.

The socialist Gouvernement initiates a new period with an increased prevention and a new system of insurance about natural hazards call « **assurance CATNAT** ».

Every year, billion of euro are spent to rebuilt houses, factories, roads....

If a new e.q. like the Lambesc in 1909 occurred, there would be thousands of deaths (2.500 to 4.000), billions of damages

So the new CATNAT system is made with :

- **compulsory insurance** for all contracts related to damages,
- **4% of tax level** (for exemple 8 euro for 200 euro of « insurance ») but in reality,
- it is a **system of solidarity** (in Japan, the level of insurance is in relationship with price of the house, not in France!)

CAT NAT born in 1982 is **a subtle coupling between right to compensation and duty of prevention** but reality is different!!

In 90' I choose to work **NOT ONLY ON HAZARD** but on the **RISK SYSTEM**, so on **NATURE** but also about **SOCIETY**.

San Giuliano di Puglia e.q. as mission' director and consulting' works near the french diplomatics service in Italy.

In 2002, I was choose by AFPS **to manage the french official post seismic mission for the Government after the San Giuliano di Puglia e.q. in november.**

During this period I work with the French Consulate in Naples (Christine MORO) and also with the Scientific Advisor of the French Embassy in Rome (Prof. Robert CARLES).

I work also with italian offices : INGV, Servizio Sismico, Protezione Civile ...

In november 2003 I organized a franco-italian conference about risk in Naples.

In the morning we talk about « **earling warning** » and the afternoon about **insurance.**

At the end it was decided to make a **work group for a project of CATNAT insurance in Italy**, with the help of European Group of Insurance and french insurance (FFSA, MRN).

So we have write a project using french example but using also italian context.

The work was long and **it was finished in april 2005**, in the FFSA offices in Paris.

The project was given to italian authorities (President of Council) **but it was not used.**

Evolution of french system CAT NAT insurance

CATNAT system born in 1982 was modified several times (1987, 2001, 2003, 2010).

The CAT NAT Tax was 4% at the beginning and now 12%!

Normally exist PPR cartography with RED = NO, BLUE = problems and WHITE = OK.

Mayors say : **it is money so they are possibilities to built in all area** and if it is problem (flood, e.q., avalanche, landslide....) **damages will be paid by CAT NAT!**

During Xynthia hurricane (2010), many houses were in red area and submerged.

Finally near 750 are bought by State (at the beginning = 1.000 asked!) and at 500.000 euro each the price for National Budget is near 400 millions euro and also 1,5 billions euro of insured losses so = 2 billions euro.

Recently in Var : 10 houses in red area = 5 millions euro, only in one commune!

The compensation is not complete : a frankness exists (340 for house and 10% for professional use) but it is modulated according decrees of natural disaster (0,1,2 = 340; 3 = 760; 4 = 1140 and 5 = 1520).

**SO THE CITIZEN PAYS BECAUSE RULES
ARE NOT RESPECTED BY AUTHORITIES !**

My possibilities of work in this project

I can be implied in various axes

- Sismo tectonic context,
- Geomorphology and site effect,
- Prevention policies,
- Help organization,
- Vulnerability
- Insurance
- **AND OVERALL IN PLANNING TERRITORY to give tools for authorities.**
- **For Irpinia e.g, each victim = 70.000 euro but San Giuliano 240.000 euro (medium value of each house = 650.000 euro!)**
- **IT IS BETTER TO MADE PREVENTION THAN RECONSTRUCTION!!!!!!**

And I can also mobilize french experts and group of specialists.

Thank for attention

Roma, 13/3/2014

MAGAGNOSC Jean sul web

If you want see the visibility of MAGAGNOSC Jean on web you can search with :

- MAGAGNOSC Jean risques (many works in french : conferences, workshop with students, local authorities)
- MAGAGNOSC Jean rischio (many references to works in Italy)
- MAGAGNOSC Jean MESIMEX

I organized in april 2011 a congress about seismic risk in France with MAIF (insurance trust) and you can see the acts of the congress at :

<http://www.maif.fr/content/pdf/la-maif-s-engage/actions-mutualistes/rencontres-geographes/MAIF-rencontres-geographes-assureurs-2011.pdf>