



Évaluation des métamorphoses

Jacques Charlier, Pérenchies

Xavier Zanlonghi, Nantes

Martine Crochet, Creil

**EARLIEST SYMPTOMS OF DISEASES
OF THE MACULA*†**

BY

MARC AMSLER

Zürich

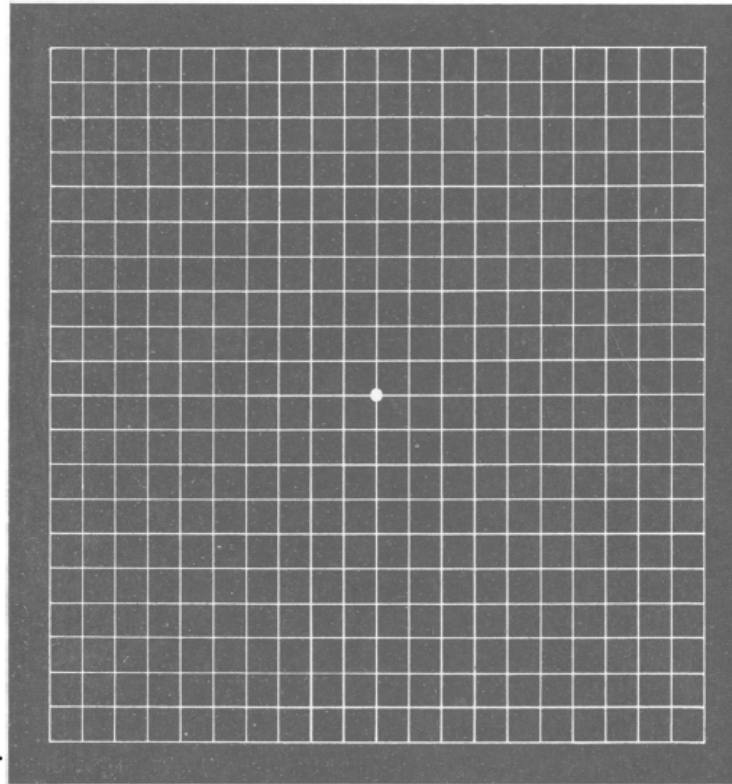
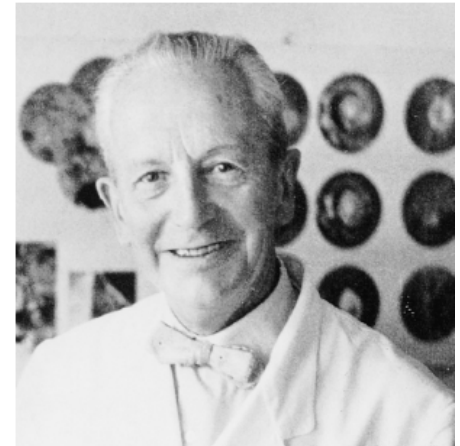


FIG. 1.—The Amsler Grid.

A SIMPLE METHOD OF EXAMINATION

The essential points of a practical and rapid method of examination are these (Amsler, 1947, 1949):



Limites du test de Amsler

- Difficulté de la tâche
- Pas de contrôle de fixation
- Pas de quantification
- Pas de contrôle de la validité des réponses
- Phénomènes de complétion

Évaluation quantitative des métamorphopsies dans la pathologie maculaire

C.-F. Arndt, S. Séguinet, P. Debruyne, S. Defoort-Dhellemmes, J.-C. Hache

- SLO
- quantification

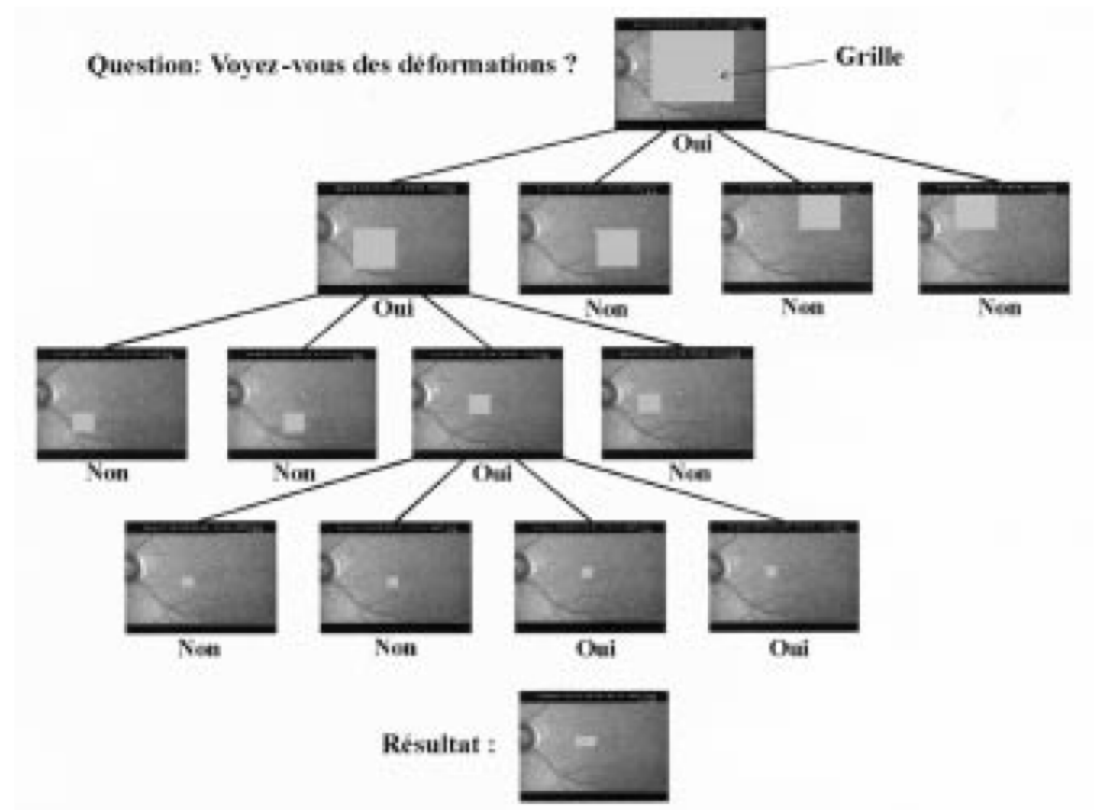


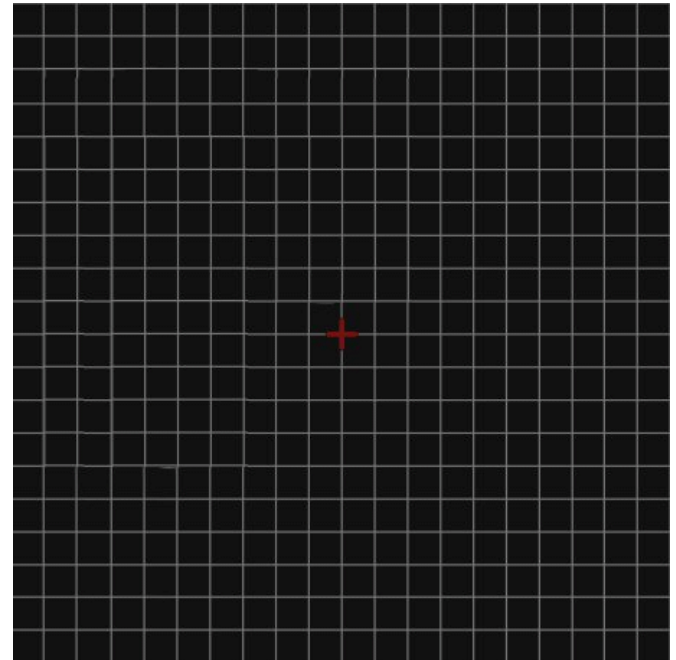
Figure 1 : Procédure de détection des métamorphopsies. Stratégie par arbre quaternaire

Différentes approches

- Notal Vision PHP perimeter (Israël)
- JPL Laboratory (USA)
- Smith Kettlewell Institute MMT (USA)
- Kinki University (Japon)
- Entoptic perimetry (Allemagne)
- ...

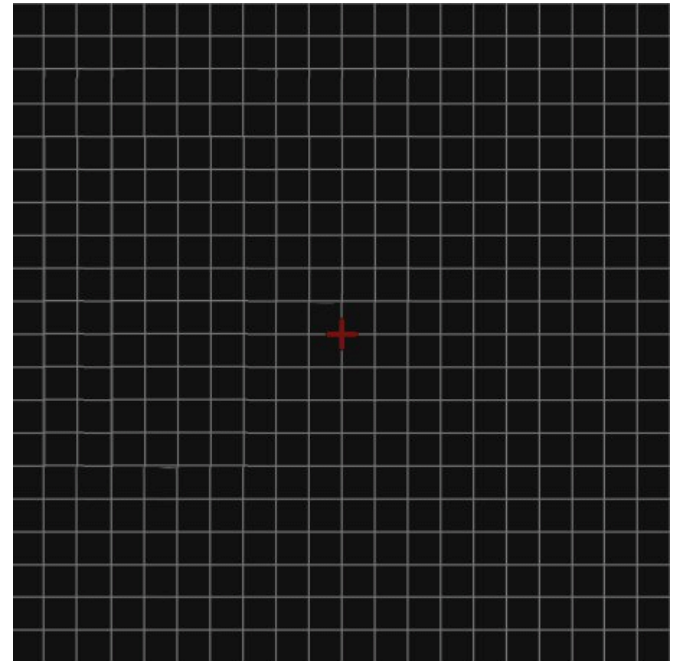
Nouvelle approche

- choix de la tâche
- choix des paramètres de la stimulation
- choix du critère de réponse
- choix des algorithmes
- choix de critères de validation
- choix de la méthode d'analyse



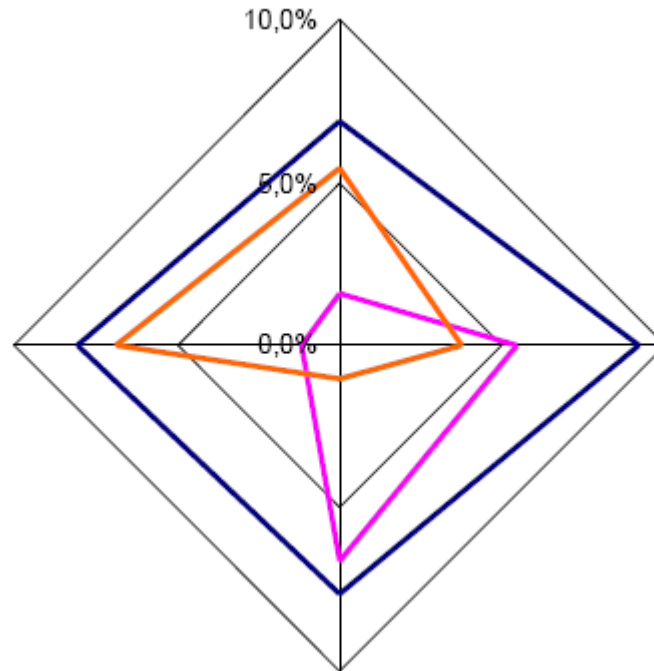
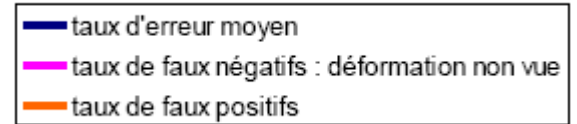
Optimisation par simulation sur ordinateur

- nombre de faux positifs
- nombre de faux négatifs



Optimisation de l'examen

Appui quand déformation
taille 2 x 2



Appui quand
absence déformation
taille 2 x 2

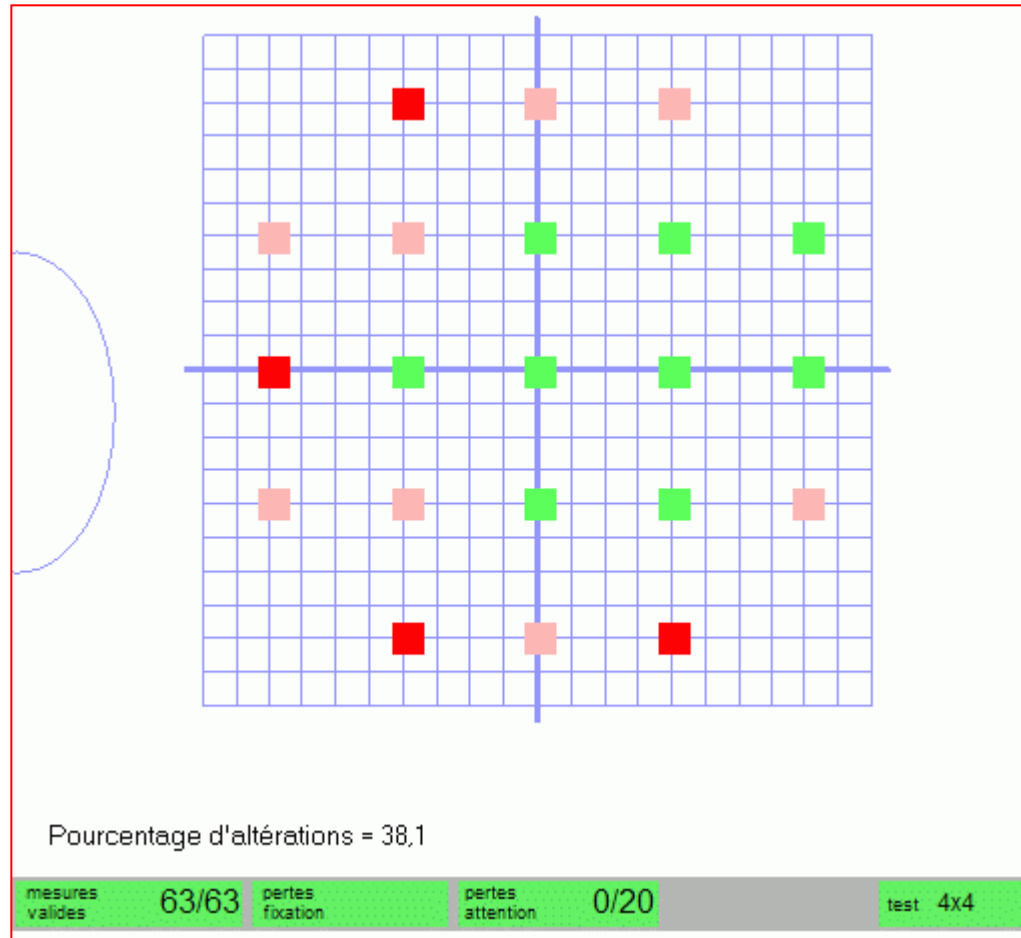
Appui quand déformation
taille 4 x 4

Appui quand
absence déformation
taille 4 x 4

Implémentation sur Vision Monitor

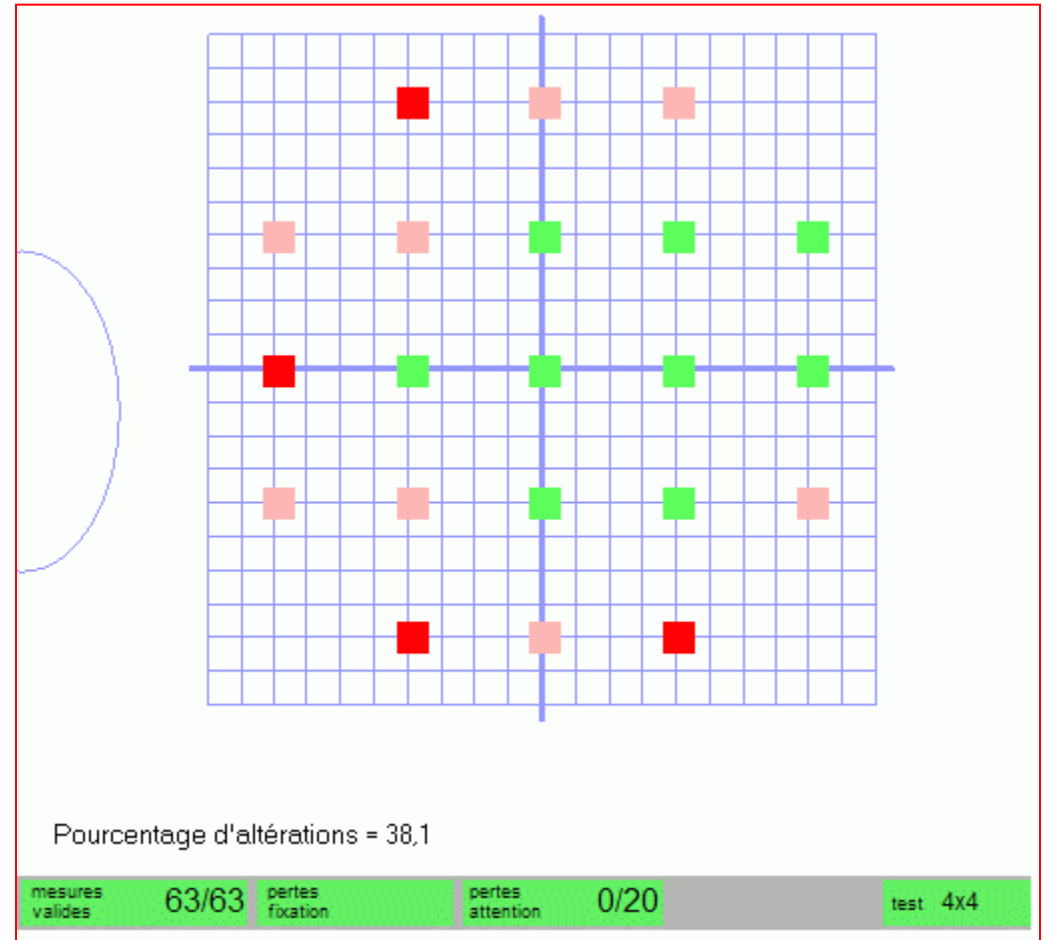
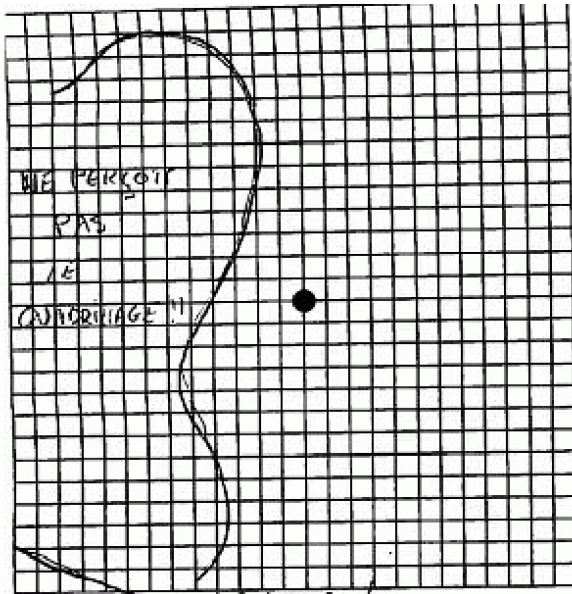
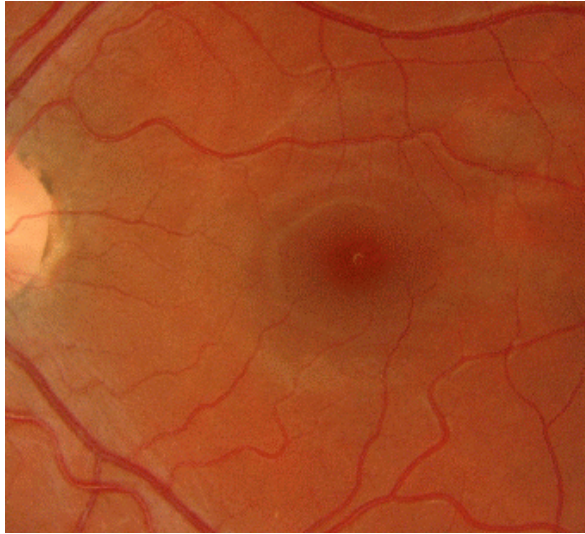


Exemple de résultat



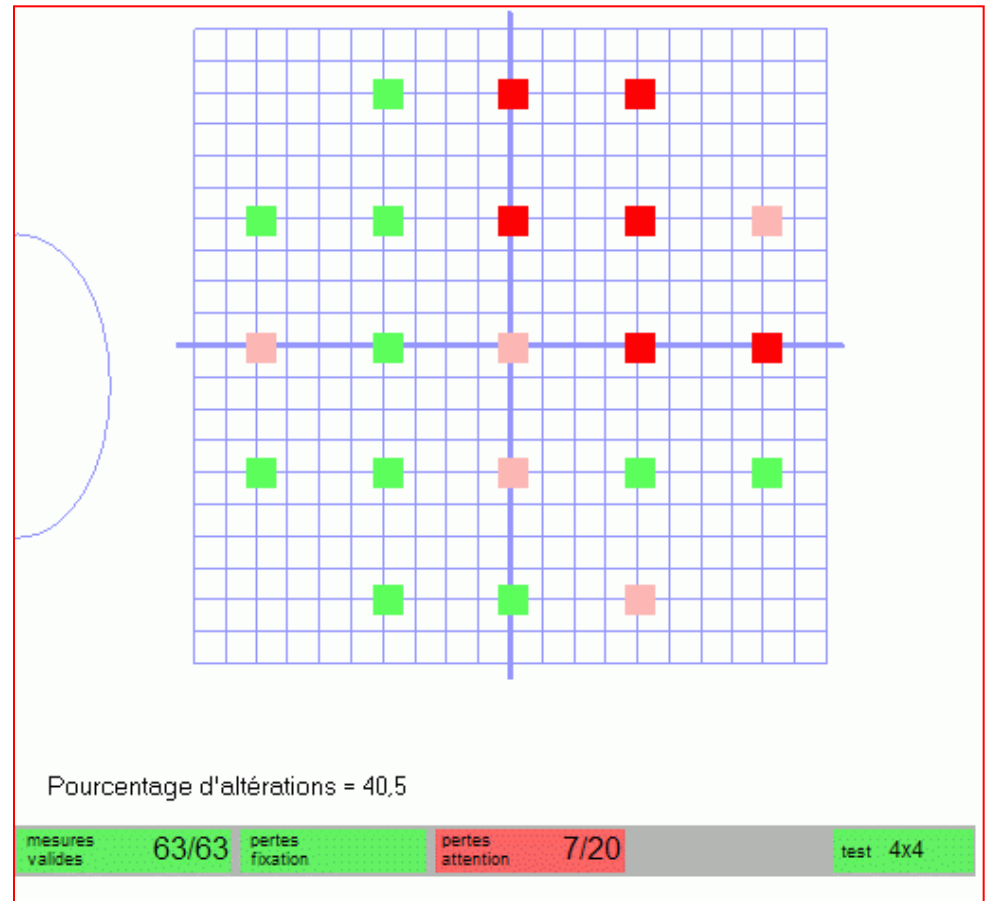
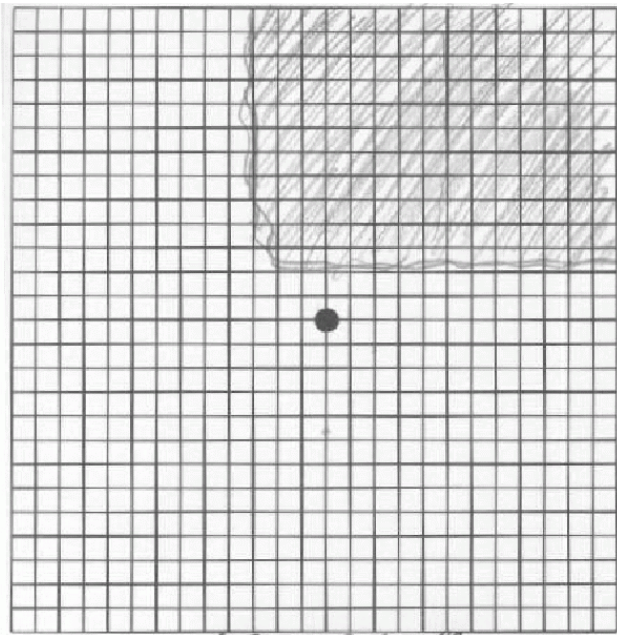
Probabilité d'altération: 2/2 ■ 1/2 ■ 0/2 ■

Mme ME, 32 ans OG (XZ)



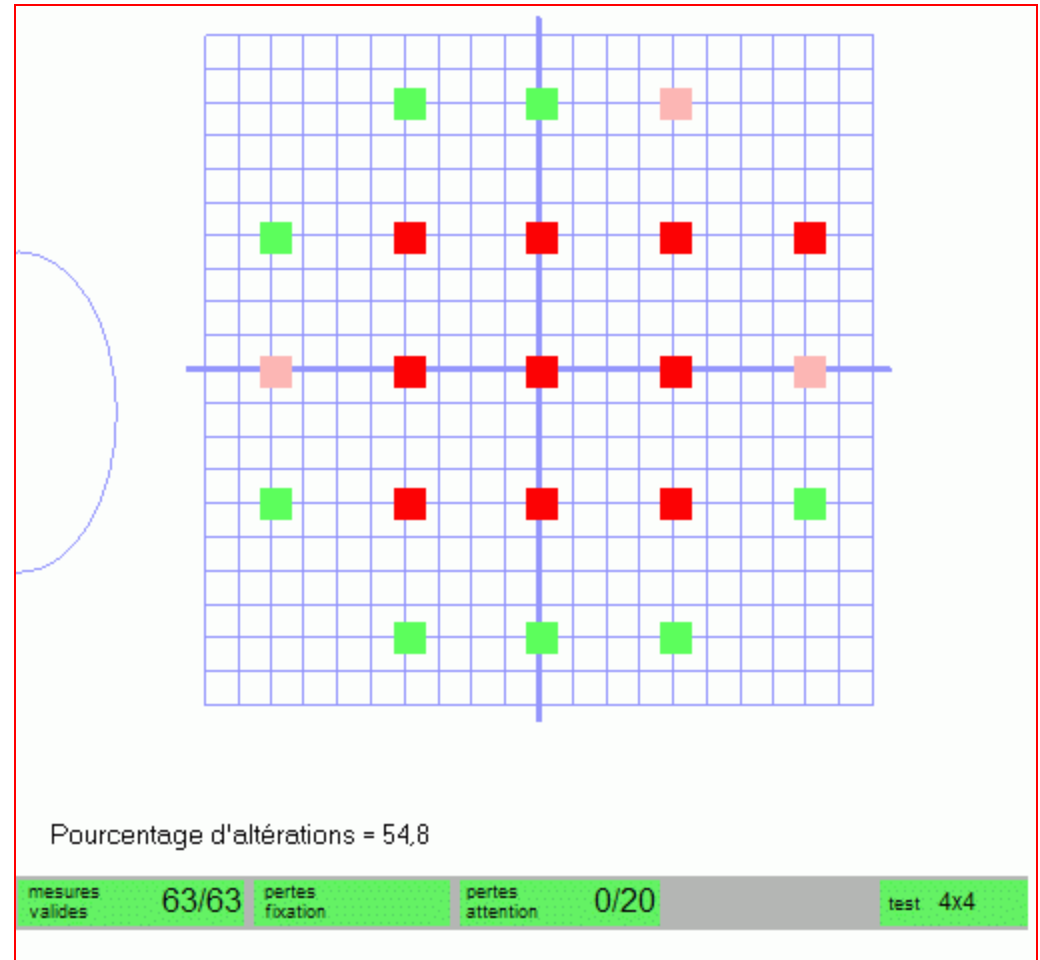
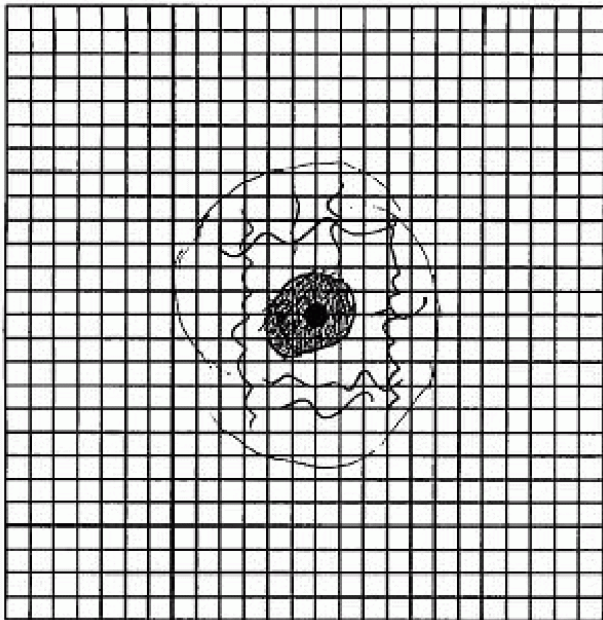
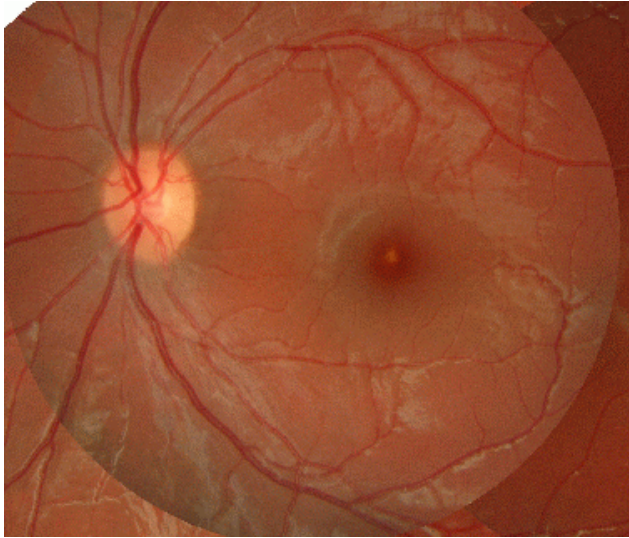
Cartographie des métamorphoses

Mme CO, 87 ans OG (XZ)



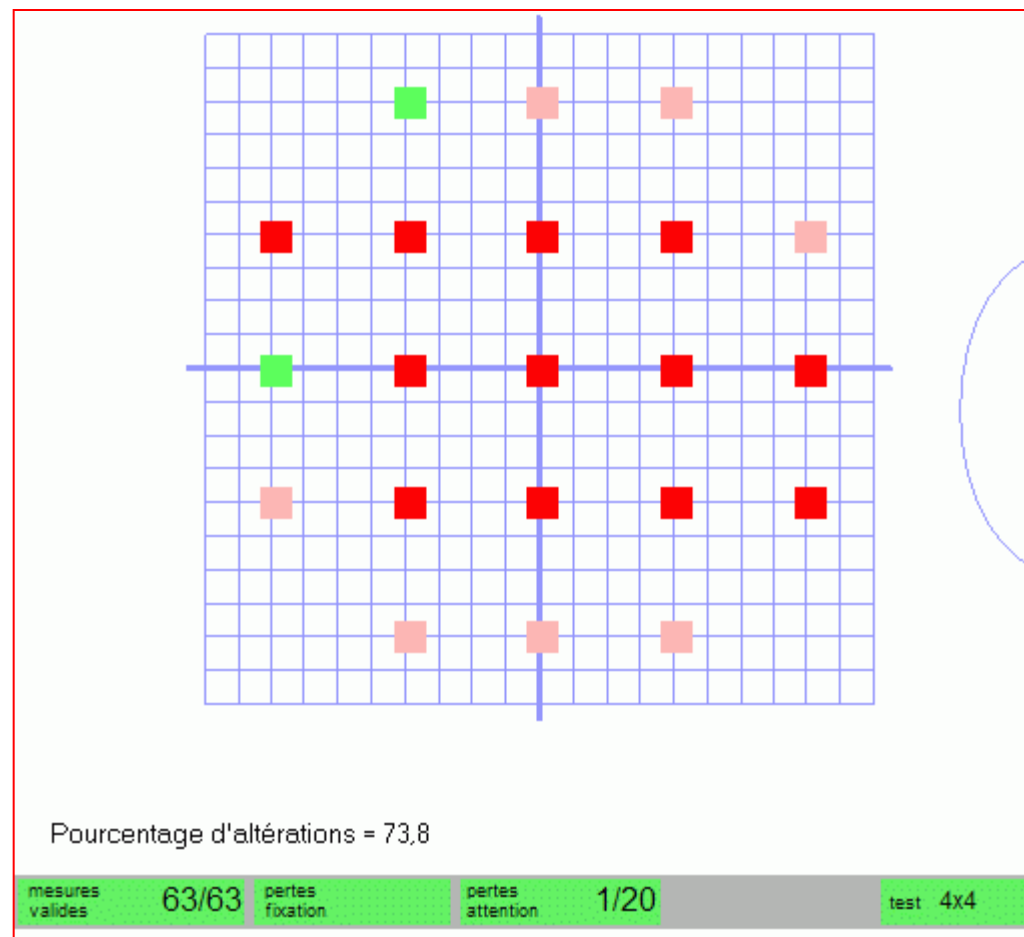
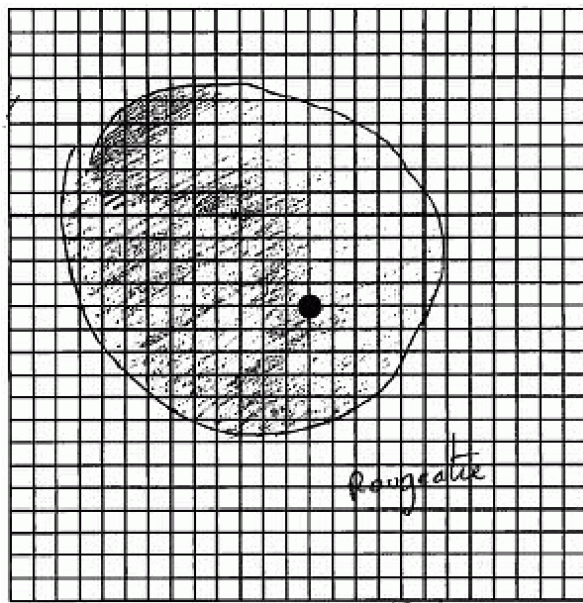
Cartographie des métamorphosies

Mr DE, 16 ans OG (XZ)



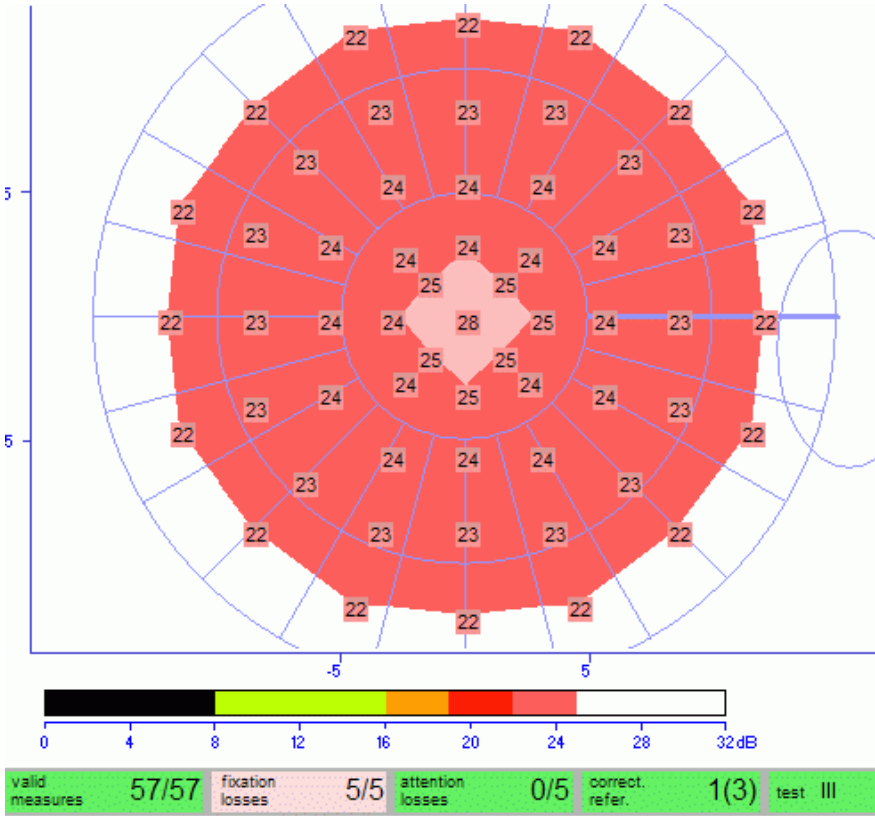
Cartographie des métamorphosies

Mme GU, 45 ans OD (XZ)



Cartographie des métamorphoses

Mme LE, 68 ans OD (XZ)

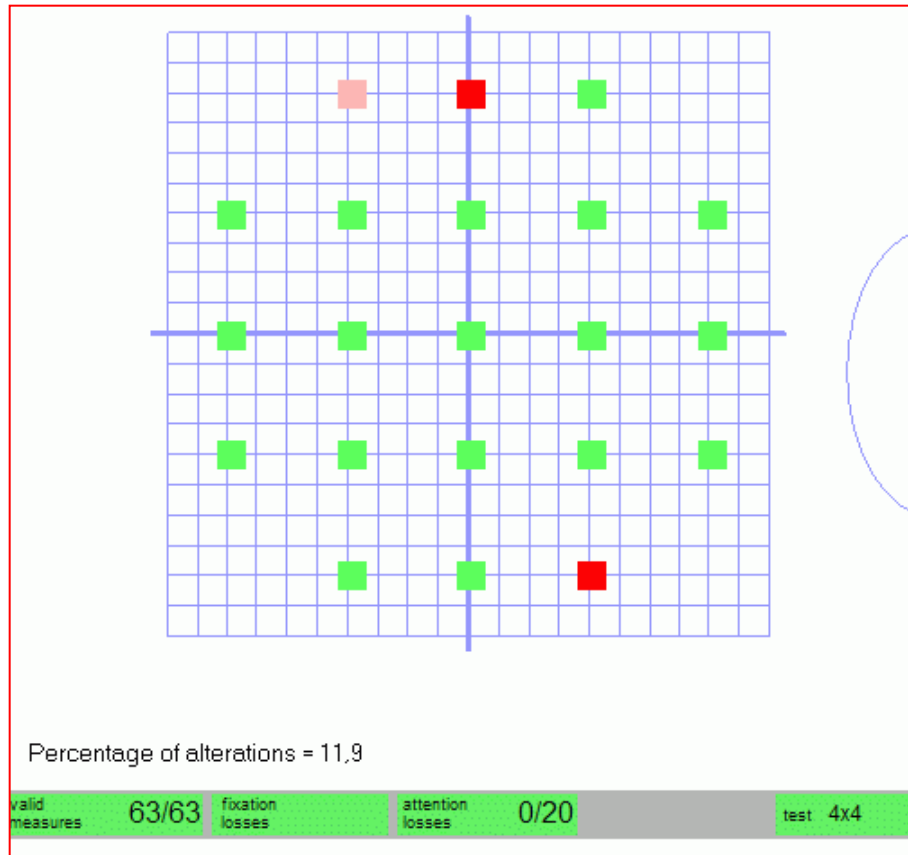


Champ visuel maculaire

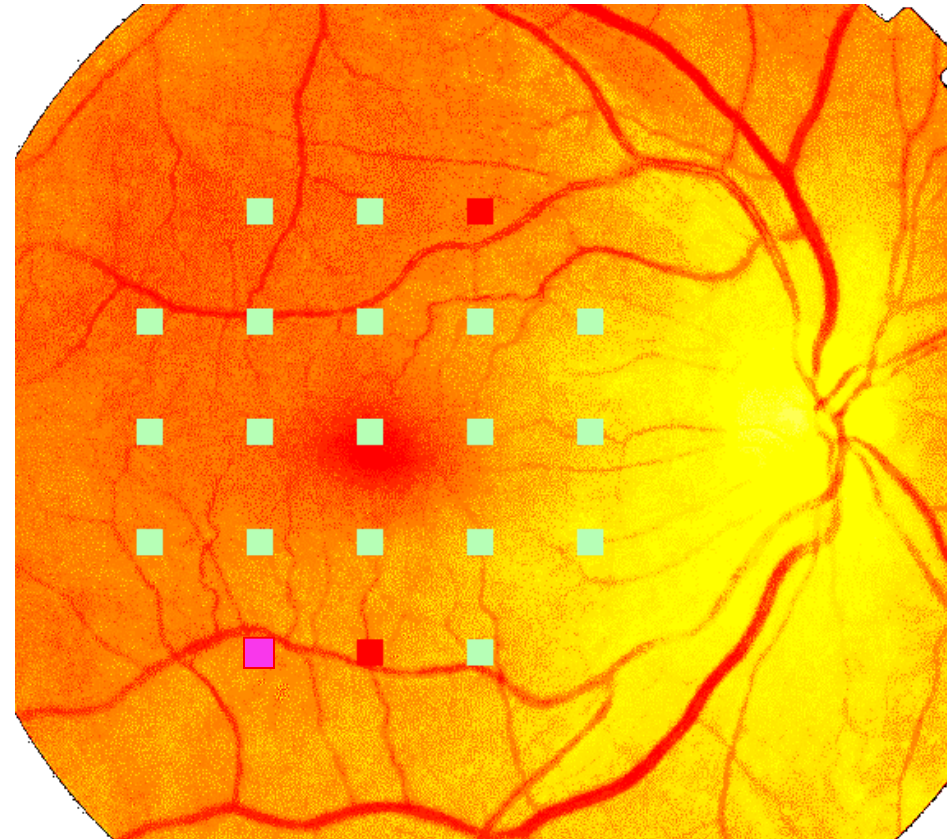


Fond d'oeil

Mme LE, 68 ans OD (XZ)



Cartographie des métamorphosies



Superposition au fond d'oeil

“ The early
detection of macular degenerations is of great importance, as we can do
something for them ”.

Amsler, 1953



Fig. 6. Munch. Watercolor, 1930. The sketch shows the dense scotoma with its bird head on top (M334). Looking toward it is a gaunt figure with a skull-like head, and arms folded across the chest in a pose that symbolizes death. ©The Munch Museum/The Munch Ellingsen Group/ARS, New York 1999.

Munch Museum, Oslo
Reference: Marmor, 2000

