**Outline of Brombach by Ray Gottlieb**

The size of the field for green was small during the time a person has an abscessed tooth, and recovered shortly after the removal of the tooth. Associated with that was the fact that the tonus of the entire motor mechanism was low, but particularly distance adduction; after the removal of the tooth, the tonus of the ductions would increase.

In case of low tonus of ductions the relative size of the color fields was small and would assume larger relative size after orthoptic exercises.

FOCAL INFECTION micro-organisms within more or less normal tissue.
Normal: green in the center, followed by red then blue. There must not be any overlapping or interlacing effects of color in any form. If there is, you are dealing with a toxic influence. The field for form should be beyond the field for blue, and beyond that you have the perception for motion. The perception for motion is not impaired in any way, shape or form unless you deal with brain pressure or the results of ocular pathology.

The extent of the field for white or form which normally should not be below 60 degrees drops to a relative size of 10 or 12 degree in case you have activities resulting from a focal infection.

Twenty-four hours after the removal of the causative agent the fields become normal, in relative size and characteristic color perception.

A person may lose, due to trauma, the ability to recognize moving objects while retaining perception of stationary objects, or he may lose the perception of form and line and retain the perception of motion.

Move the target for white, blue, red and green from the periphery toward the fixation point until a saturated perception of the color could be retained, the target being in a stationary position.

Visual field measurement does not condemn orthoptics, they add to orthoptic. Visual fields give you information when and when not to proceed with orthoptics. If you proceed to apply any technique to improve the visual apparatus in the presence of a toxic agent you will meet with failure.

It is not at all out of the question that a person may have an abscessed tooth and the visual charts may be negative, no indications of neuritis, normal ductions: the person may have: developed an immunity against invasion of the microorganism coming from the abscessed tooth; it is also possible that the stimulation by another toxic agent (cigarettes, coffee and other similar alkaloids, may have entirely obscured the depressive effects caused by the infection.

The fields only indicate abnormalities when the physiology of the organism is impaired.

People who consult an optometrist do so because they have visual discomfort. There may be some physical defects, that particular patient may have almost any type of impending pathology. He may carry the effects of coffee or tobacco intoxication at a different hour of the day, ad during the course of a precise eye examination this patient might have been under the effects of a stimulative stage of intoxication, exhilarating all reactions obscuring the defects ordinarily found.

Intoxication (exogenous toxemia)

The symptoms may vary from slight ocular discomfort, asthenopia, headaches and nausea to transient amaurosis and severe disturbances of the general nervous system.

The effects of intoxication therefore present to the physical eye examiner a very important problem which must be recognized and eliminated before proper analysis of the refractive and muscular status and the scope of function of the human eye can be ascertained.

Three stages of intoxication are:

Stimulative stage: After a night's rests the color field is normal order, medium size, ductions are medium. After the stimulation, within a few hours, the entire relative size of the field will become lager, with a pronounced expansion of green interlacing and overlapping with the red, until the red is entirely overlapped by the green. This is the high point of the stimulative stage.

Depressive stage: If the stimulus continues beyond the high point of the stimulus stage, the depressive stage will soon be in evidence. Symptoms: frontal, temporal, occipital and basal headaches, sluggishness in response to stimuli, difficulty in concentration, melancholic outlook in life, low tonus of ductions, occasional blur at distance and near. These symptoms are so similar to those found in endogenous toxemia they appear to be present throughout the day.
Field: from overall expansion with green over red, the green collapses and subsequently the red expands, interlaces and finally overlaps the blue. This is termed the maximum range of depressive intoxication. The collapse of green and overlapping of red over blue begins in one eye only.

Degenerative stage (called toxic amblyopia) It almost always occurs in one eye only
Field: red over blue and central scotoma.

Regardless of the stage of intoxication stimulative, depressive, or degenerative or the age, sex or the quantity of the costive agent, if you eliminate the true toxic agent there will be a complete recovery within a period of 2 hrs.

The fields for white and motion are not affected.

No particular attention should be paid to interlacing or overlapping color fields up to the age of 12, 13, or 14.

Why take motion fields? Because they indicate brain pressure. Motion fields is measured with a small white target vibrated horizontally.

Amblyopias: Congenital – low V.A. from birth. Generally normal fields, the same all hours of the day. Poor prognosis. Usually both eyes.
Toxic – usually in only one eye, usually develops during late afternoon, Form and motion are normal, color fields are restricted with red overlapping blue and one eye registers a central relative scotoma usually for green, good prognosis.
Exanopsia – does not show any abnormal fields, good prognosis.

Endgenous toxemia – include all infections of a locked and drainage type, glandular dysfunctions, abnormal metabolic actions which interferes with normal chemistry.

Drainage type sends micro-organisms into the system usually does not affect motion and form, but does produce overlapping effects in the color field.
Locked - normal motion, form field restricted often within the outlines of color. Characteristically red overlaps blue and often a decrease in relative size of green. They remain unchanged in the fore and afternoon, low ductions, neuritis occipital and basal headaches, difficulty in concentration, gastro-intestinal disorders, infiltration of the conjunctiva, and a general ocular asthenopia.

The visual field indication in glandular dysfunction often indicates a normal motion and form field, a normal or increased field for color in relative size with a characteristic perception of red overlapping blue and sometimes green overlapping red. There are minor changes in the characteristic perception during the course of the day.

If the true cause is removed, you will have an absolute recovery in the visual field within 24 hours. It is essentially necessary to make these recovery tests not later than 48 hours. If you wait two weeks you may have toxic indications caused by the process of elimination adjusting the organism to normal. Indications must be the same in the forenoon and afternoon.

There is no way of differentiating between the chart showing infection from a sinus or one from a tooth – not unless it is a drainage or locked infection. The locked type only shows the small white field. You may have an infection at the end of a tooth and the root canal open with drainage in the mouth – that is a drainage type of infection. The white field would be larger in that case.

Locked infections – 90 out of 100 are found in the mouth, but occasionally we find one somewhere else.

Appendicitis shows usually more like sinusitis – a drainage type. Appendicitis may be locked, but seldom is. Small form field is indicative of a locked infection.