# Journal of Optometric Phototherapy

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**Finding Light During Dark Times** 

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**Sound Healing and Syntonics** 

Sharing the Light with Our Next Generation of ODs A Personal Investigation Into Syntonic Theory and Colour Vision, an alternative concept

April 2019

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# **College of Syntonic Optometry**

A NONPROFIT ORGANIZATION DEDICATED TO RESEARCH IN PHOTORETINOLOGY. THE THERAPEUTIC APPLICATION OF LIGHT TO THE VISUAL SYSTEM

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#### Fundraise, Research, Acceptance

**Mission Statement:** "to Further the Art and Science of Phototherapy..."

Just as our founding father, Dr. Henry Riley Spitler established the College of Syntonic Optometry by publishing his research, we can further the Art and Science of Syntonics with modern day research. His ground breaking exhaustive research provided the template for Optometric Syntonic therapy. His reported results were stunning; with 3,000 patients and 27,000 syntonizations, he had a positive response in 91% of his subjects. Rarely does a medical intervention have such positive results. However he did not start with research, rather it emerged from clinical observations, a truth of which he notes in the forward of "The Syntonic Principle":

> "It has well been said that clinical results prove nothing. This is true. Yet in all of the biological professions, the clinical test is the final test of effectivity."

Our leaders, Drs. Wallace and Gottlieb have long advocated for new research and many of us have admirably done research in our own practices. But we are clinicians and research is an art unto itself. We need sound research by qualified researchers that others both inside and outside the profession can accept. Research is the currency of acceptance. What do we need for research? We need money. Not money from ourselves but from the public at large as they are the beneficiaries, both private and public. For better or worse, nothing attracts interest like money, note



the cannabis craze. We know in our hearts and from our patients that Syntonics works. But to share the light to the broader public and health community, research is an important tool. As a well established non-profit organization, I propose we form a fundraising committee to solicit private and public funds outside the profession for phototherapy research with the goal of a million plus. As small business owners this seems like a lot, but in the world of research this is a mere starting point. This money will give us the clout that we can shop for interested researchers.

*Show Me the Money!* "...so that those who enter may see the light." Luke 8:16

Spitler makes a great point that ultimately research must have clinical value. As clinicians we know this, the challenge is to have others know it. In a world of chemical interventions, light therapy is an anathema. We will need a lot of money! See you in Florida.

~ Hans F. Lessmann, O.D., FCSO, FCOVD



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## **Editorial 2019**

#### Irene Wahlmeier, MS, COVT

This year's Journal is focusing on the men and women who have and are contributing to CSO by their unique approach to Syntonics, by what Syntonics has done for them and what they have given back to their Community. As research in light and vision illuminates the use of energy medicine, our members are embracing the new technology to enhance their use of Syntonics and light to provide the best care for their patients.

Both of the articles by Geoff Shayler, Optom., FCSO and Jerry Wintrob, O.D. present their theories on Syntonics. These will promote much discussion as to their validity. As we have gone through the Syntonograms, a reoccurring theme appeared, that as the founders experimented with the best color for treatment and then published their thoughts, a rebuttal most of the time appeared. It was actually asked for and encouraged by Dr. Spitler. This year's Journal continues with that tradition. In the spirit of Spitler, let's discuss their papers. Letters to the editor are welcomed and will be published in the weekly Syntonograms. This will help us to move boldly into the light. Alia Santoyo-Johnson, O.D. gives us a heart wrenching story on how Syntonics saved her life. It is indicative of the power of Light. Through her experience of being a TBI patient, she is able to bring her insight of healing to her patients.

The College received two donations of equipment this year. One was a Color Receptivity Trainer produced by Jacob Liberman, O.D., Ph.D. It was donated for the library archives by Marcia Buckingham, the daughter of Marie Burleson. Dr. Burleson was an alternative care physician, a doctor of homeopathy, doctor of acupuncture, and diplomat of nutrition and best of all a syntonist.

The other donation was a College Syntonizer donated by Melody Mock Durso, the daughter of Lewis E. Mock, O.D. See the "About the Cover" for a story on Dr. Mock, who served for eight years on the board of directors for the College of Syntonic Optometry. We have chosen to honor his life's work in Optometry and music.

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## A Personal Investigation Into Syntonic Theory and Colour Vision, an alternative concept

#### Geoff Shayler BSc, FCOptom, FCSO, FBOAF, FEASO

#### Introduction

I have been utilising the benefits of optometric phototherapy, (Syntonics), for over 20 years, but the published research on its use and action on the brain and visual process is extremely limited.

This is a very personal investigation into the possible action of Syntonics on the visual processing areas of the brain.

As this is a personal inquiry, I can make no claims as to the reality or reliability of my conclusions, but hope that they may lead to further research by individuals with greater knowledge at some future date.

#### History

Stefan Collier claimed during his Curriculum 1 course in Syntonic Optometry<sup>1</sup> that different colours before the eyes could affect body stiffness.

Personally, I have limited movement in my wrists as a result of repetitive strain injury and X-rays taken 8 years ago confirmed this limitation was caused by arthritic changes. Experimenting with some of his "syntonic goggles" I identified that when the "S" (stimulant) goggle was worn, my wrist flexibility reduced and increased when the "D" (depressant) goggle was worn. I also noted similar effects with +/- lenses and with yoked prism lenses.

In order to evaluate this phenomenon, I set up a simple experiment, measuring the wrist angles against a protractor on my computer screen, shown below (Figure 1).

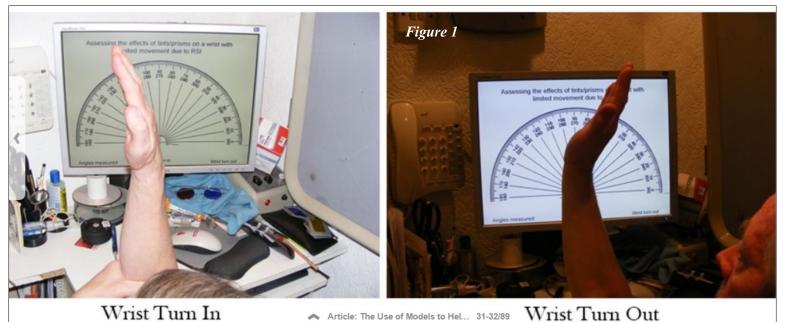
I measured the angles with the following lens combinations:

- Low plus spheres +0.50DS/-0.50DS
- Yoked prisms 2PD base up / 2PD base down
- "S" (stimulant) yellow filter / "D" (depressant) blue filter
- 3D glasses red on right, blue on left / blue on right, red on left

The results of this experiment are shown in figure 2, on the following page.

This study identified that low plus, base down yoked prism and the D filter all increases wrist flexibility, whereas minus lenses, yoked prism base up, and the "S" filter all decreased wrist movement.

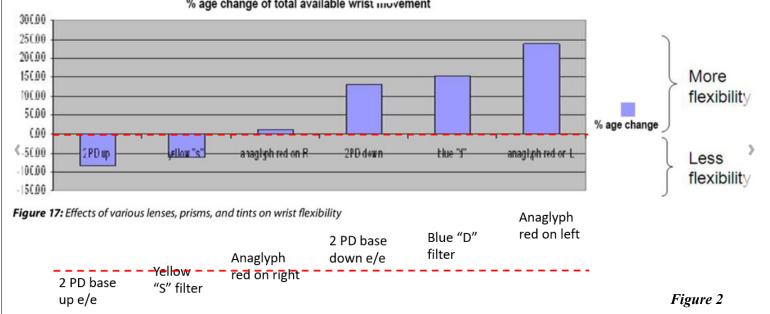
My conclusion from this simple experiment indicated that those "lens options" which reduce wrist movement are stimulating the sympathetic (fight and flight) branch of the autonomic nervous system and that those "lens options" which increase wrist movement are either inhibiting the sympathetic (fight and flight) branch of the au-



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### Changes in wrist flexibility with different lens types Percentage change in total available wrist movement

% age change of total available wrist movement



tonomic nervous system or stimulating the parasympathetic branch of the autonomic nervous system.

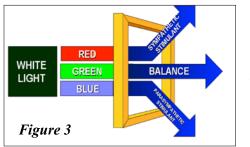
In addition to these simple lens options, a big difference was noted when wearing red/blue glasses typically used for looking at 3D anaglyph images; red on the right (blue on the left) made minimal difference, whereas red on the left (blue on the right) provided maximal flexibility.

The results of this study were published in Optometry and Visual Performance.

#### **Further investigation**

Intrigued by these results, I decided to investigate further to see if I could not only analyse the impact of colour on my wrist flexibility, but in addition identify which visual areas of the brain were involved.

In these studies, I have only investigated red and blue lenses



In syntonic theory, red is thought **STIMULATE** to sympathetic the branch of the autonomic nervous system, and blue is thought to STIMU-

LATE the parasympathetic branch of the autonomic nervous system, Figure 3 (from Syntonic 101 course).

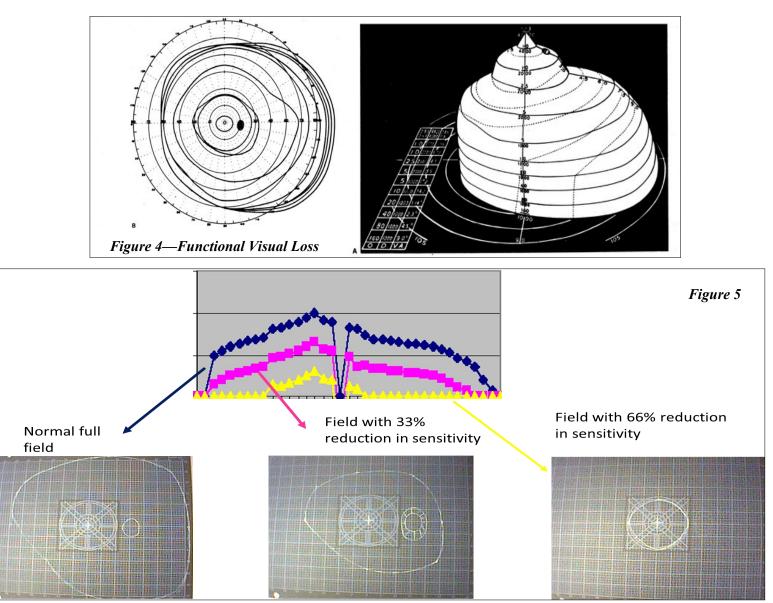
#### Part 1 Background Functional (dynamic) visual fields

In order to understand what is happening, I need to digress to explain the relationship between the "functional visual field" and the autonomic nervous system.

Whilst other researchers were mapping peripheral vision with Arc perimeters, Jannick Bjerrum (1851-1920) Professor of Ophthalmology in Copenhagen felt that careful mapping of the central 30deg was more useful, using a series of different size targets, especially to show the early subtle changes in glaucoma. Harry Moss-Traquair of Edinburgh<sup>3</sup>, used both an arc perimenter and 2 metre screen to develop his "island of vision" concept.<sup>4</sup>

Functional Visual Loss (FVL) is a decrease in visual acuity and/or visual field not caused by any organic lesion. It is therefore also called "nonorganic visual loss" (NOVL). This entity is considered within the spectrum of "conversion disorder", malingering, somatotropin disorder, and "factitious disorder".<sup>5</sup>

The psychologist, Sigmund Freud looked at a number of patients who experienced reduced fields. Those patients that were identified with "tunnel vision" he labelled as "malingering", and those whose fields closed down during the testing process, i.e., a spiral field, he



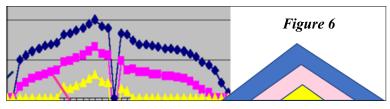
Note: These are NOT colour fields, "blue" is simply used in diagram above to indicate the shape and size of a white field, demonstrating how the size and height of the island reduces as we reduce the threshold required for conscious cognition.

labelled as experiencing "hysteria". Modern terms additionally include visual conversion reaction, non malingering Streff syndrome, etc.

Modern optometrists use automated static threshold field screeners which will generally fail to detect these problems as they are primarily activating the parvocellular system.

Campimetry as practiced by syntonic optometrists, will identify these peripheral problems easily as they are more effective at measuring magnocellular function.

The size, colour, or visual demand of the target will determine the ability of an individual to process that target



at a "conscious" level. By changing the threshold of visual awareness, the "brain" can alter visual input to the cortex for conscious processing and, by doing so, alter the stress of the individual to allow him to better cope with cortical visual demand.<sup>6</sup>

Figure 5 diagram indicates that the reduced field is not due to pathology, but *due to a change of "perceptual" threshold*.

But I wish, at this point, to consider the size and shape of the fields instead of the "island described by Traquair" to be triangular (Figure 6).

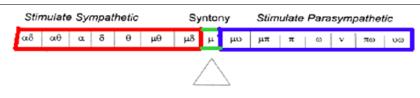
The full white field represented by Blue approximates Blue triangle.

The white field with 33% reduction in sensitivity is represented by the Pink triangle.

The white field with 66% reduction in sensitivity is represented by Yellow triangle.

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7



Red end of spectrum= sympathetic stimulation Blue end of spectrum= parasympathetic stimulation Figure 7

In syntonic theory, the relationship of the 2 sides of the autonomic nervous system is considered like a balance board<sup>7</sup> in Figure 7.

As syntonic optometrists, we find that when the visual fields are reduced, numerous visual functions perform at a reduced level and when the visual field is full, the visual performance is good so this can be demonstrated by considering that when the visual field is full, Figure 8, that the balance board has plenty of flexibility of potential movement, whereas when the fields are small, Figure 9, there is only a small pyramid supporting the balance board limiting movement and flexibility, as result of which we find the following visual changes:-

- Poor fusional reserves
- Limited range of clear near reading
- Reduced PRA/NRA measures
- Inability to maintain pupil constriction (alpha omega pupil response)
- Reduced convergence
- Poor pursuits and saccades
- Reduced VA's, etc,<sup>8</sup>

In this paper we are primarily discussing visual performance, but we should also consider we are demonstrating that autonomic imbalance is affecting autonomic action within the entire body....

- As a result we can see that the functional visual field is associated with:
- The performance, organisation and efficiency of the autonomic nervous system
- The related visual and non-visual activation of the autonomic driven functions
- Improve our ability, as Optometrists, to understand our patients difficulties

#### Part 2

# How does syntonic phototherapy impact on the visual system?

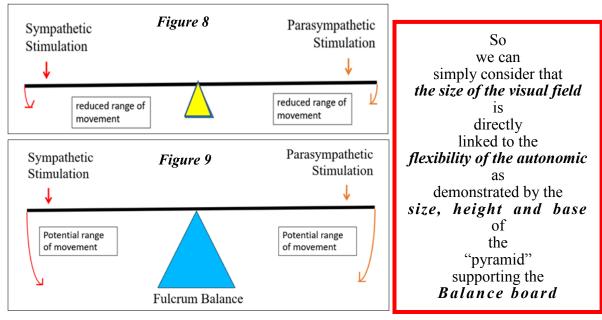
#### Syntonic theory 1 (Figure 10)

Consider the effect of stimulating an individual who is in a visually "severely stressed" state, the balance board will have collapsed on the sympathetic side. If we "stimulate" this situation with an alpha (red) filter, Figure 11, there will be little effect as the system is already "maxed out" on this side of the balance board, and if we "stimulate" with omega (blue) filter, Figure 12, this is also unlikely to have any effect. Despite increasing parasympathetic stimulation, the Sympathetic is still in control, so further (blue light) stimulation <u>has little or no effect!</u>

Thus the concept that syntonic light "stimulates" the autonomic nervous system is NOT an acceptable model!

#### Syntonic Model 2

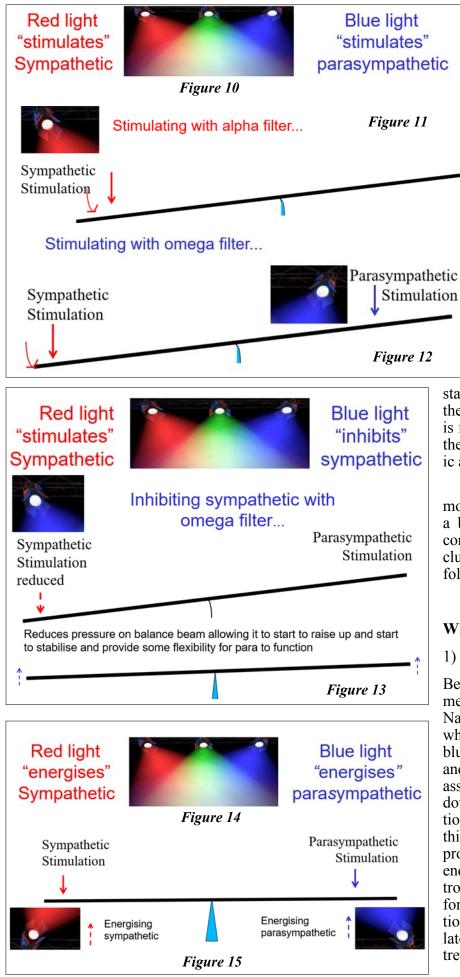
This model proposes that blue light "inhibits" the sympathetic



In this model, inhibition of the sympathetic (Figure 13), will reduce pressure on the balance beam allowing it to raise up, start to stabilise and provide some flexibility for the parasympathetic to function.

Syntonic theory 2 – blue light inhibits sympathetic is an acceptable working model and is seen when working in cases of brain trauma.

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#### Syntonic Model 3

When both Parasympathetic and Sympathetic nervous systems are in overload they, the brain and body are lacking in any useful energy to function. In this model, the Alpha and Omega filters are "energising" both sympathetic and parasympathetic systems (Figure 14) allowing the balance board to raise, balance and stabilise Figure 15.

Thus syntonic theory 3 is an acceptable working model and typically seen in children with vision related learning difficulties or patients with emotional "shut down" issues.

#### Part 3 The Experiments Studies carried out into the effect of coloured lenses before the eyes

Having got a background into understanding the potential actions of syntonic filters on the autonomic and how the size of the visual field is related to autonomic function, we will return to the actions of red and blue lenses on the autonomic and visual systems.

I carried out tests with pairs of filter lenses and monocular filters in both a monocular field and in a binocular field. As the studies developed, we converted to various combinations of partial occlusion, with the results tabulated in a chart on the following page.

#### What can we conclude from these experiments?

#### 1) Nascentisation

Before we carry out syntonic therapy, CSO recommends that patients undergo an activity called Nascentisation, where the patient looks at the white light of the syntoniser whilst wearing red/ blue glasses, with red being over the dominant eye and blue over the non-dominant eye. In the past, I assumed that this activity was designed to break down cortical suppression and open up brain function ready for syntonic therapy. I feel the results of this study show that when we are dealing with a problem that is likely to be treated with the red end of the spectrum, i.e. conditions such as esotropia, esophoria should be preceded with red before RE and blue before non-dominant eye. Conditions such as brain Injury, Parkinson's, stress related learning difficulties, CI, etc. that would be treated with the blue end of the spectrum, Synton-

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	analysis of various lens combina	ations	test				test	test		
	test			movement	RIGHT	LEFT	reduced movement	no change	RIGHT	LEFT
BINOCULAR	red lens binocular						****	-	red	red
	blue lens binocular		****	(XXXXXX	blue	blue				
MONOCULAR COLOURS IN A										
BINOCULAR WORLD	red lens before RE red lens before LE		****	~~~~		red	****		red	
	blue lens before RE		XXXXXXXXXX		blue	leu			_	
	blue lens before LE						****			blue
BINOCULAR OPPOSISTE										
COLOURS	Red RE / blue LE						****		red	blue
MONOCULAR COLOURS /OTHER	blue RE / red LE		XXXXXXXXXX	000000	blue	red				
EYE OCCLUDED	red RE							****		
	red LE							XXXXXXXXXXXXXXXX	1	
	blue RE							****		
	blue LE							****		
partial occlusion										
with one eye covered	PE blue paral / red temporal							XXXXXXXXXXXXXXXXX		
partial occlusion	RE blue nasal / red temporal RE red nasal / blue temporal		XXXXXXXXXX				****		0	
by one cyc	LE blue temporal / red nasal		xxxxxxxx						<b>~</b>	
	LE red temporal / blue nasal						****			
both eyes open										
Impact of <u>norrow</u> "colour 💟										
occlusion" lens in front of one eye										
lens in front of RE, LE open no lens Blue temporal side, improves fl Red temporal side, reduces flex		exibility	****	****						
							****			
lens in front of LE, RE open no lens										
	Blue nasal side, improves flexib		****	XXXXXXX					_	
Binoculateral bilateral strips	Red nasal side, reduces flexibili	ty					****		_	
			****						+	
							****			JU.
To clarify the resu	lts									
Reduced moveme				Increa	sed m	oven	pent		1	
Sympathetic stime			Parasympathetic stimulant					1		
		-		· · ·				+		
Parasympathetic inhibitor			Sympathetic Inhibitor				-	_		
	lateral red			bilateral blue						
red before RE		<b>P</b>	red before LE				9	•		
blue before LE		3	0	blue before RE			Ke	E		
red RE/ blue LE (3D specs)				blue RE / red LE (3D specs)						
RE red nasal / LE b	lue temporal			RE blue	e nasa	al /red	d temporal			
LE red temoral / blue nasal				LE blue temporal / red nasal						
r ed left / right blu	ue binoc	T	U.	blue right, red left binoc						
			<u> </u>		0					

ics therapy should be preceded with blue before the dominant eye and red before the non-dominant eye.

2) Colour vision is primarily related to central cones and the wide central area of these binocular narrow filter lenses is clear.

In campimetry testing, the "colour fields" are within the "clear" area of these frames and, as such the "perception of colour" in these small peripheral areas is not affected by the final narrow aperture coloured strips.

Therefore, we can infer that the effect of these lenses has little or nothing to do with colour vision or colour perception!

These effects must somehow be due to the changing of the wavelength, or "energy factor" of the impacting light on peripheral function.

The impact of these strips is most likely associated with magnocellular, non-conscious, peripheral processing.

The impact of these lenses is both "binocular" and "monocular in a binocular world"!

NOTE: In my investigations, they do NOT appear to work in a monocular world with other eye closed!

#### Sector occlusion

At the BOAF conference in Vienna in 2016, I was demonstrating these concepts to Dr. Debra Zelinski, when she demonstrated that I may get a similar effect

with sector occlusion. This experiment showed that a small area in the top left field of either of my eyes allowed me to obtain good wrist flexibility, however just as in



the colour experiments, this effect only occurred with both eyes open, but with either eye partially occluded.

#### What is happening???

I have a long term limited flexion of my wrists, which can apparently be altered with various lenses, prisms, tints and sector occlusion. Of particular interest is why a small sector occlusion will provide me with full movement. This sector can be either eye whilst both eyes are open, but does not work with one eye closed!!

Totally occluding one eye does NOT affect my wrist...

#### How and why can sector occlusion affect things?

Visual input (for me) would appear to be excessive and thus causing cortical overload resulting in neurological "stress!", which shows up as reduced physical structural flexibility, both wrist and hip flexibility

Cutting out a section of (my personal) **BINOCULAR** input reduces cortical function and reduces stress

This "small change" impacts on more efficient functioning of the whole of my body!

Are we stimulating th cortex?	e retina and
conex?	<b>X</b>
Or	
Are we inhibiting info retina to cortex?	rmation from

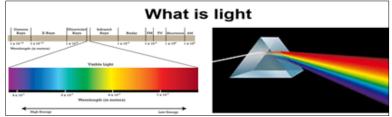
#### So now we can start to theorise some answers...

What is happening when we place a tinted lens in front of an eye???...

- Are we stimulating with colour? •
- Or are we inhibiting with colour?
- A red lens blocks blue!
- A blue lens blocks red!
- Is the principle of Syntonics therefore, NOT stimulating with a filter, but about BLOCKING some wavelengths to reduce  $\frac{"over"}{"}$ stimulation of the visual cortex!!??

Syntonic phototherapy would appear therefore to operate within the brain at a BINOCULAR level! by re-ducing the function (by suppression) of "specific binocular activated cortical cells'

This in turn reduces cortical overload and therefore "stress" allowing more efficient function of the body and its numerous functions.



#### **Part 4 Understanding Colour Vision**

Light can be considered to be the visible range within the electromagnetic spectrum for humans to "see", or which can be processed via ocular stimulation of retinal cells to provide cortical activity, just one tenth of a trillionth part of the entire electromagnetic spectrum.

Just 3 Primary colours can create (the illusion? of) all the other colours. White is the combination of these three colours, and these three colours combine to produce the secondary colours. But how do we perceive the millions of col-



ours we encounter daily?

Colour televisions / computer monitors use numerous tiny coloured lights (pixels) in combinations of just the three primary colours, which the brain processes into all these colours but how is the brain able to do this with just 3 "colour" receptors?

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The following data obtained at the following website<sup>9</sup> - <u>https://www.physicsclassroom.com/</u>

Retinal cones do NOT respond to just red or green or blue light, but to a "range" of frequencies that maximally

tion<sup>10</sup>

lengths

respond

"neurological

react in those percepted colours and there are crossovers of func-

How does the cortex identify millions of different colours?

Each retinal cone will respond to its particular range of wave-

sending

to

sage" down the line to the brain, i.e. a red receptor responds to red light, however it will

а

mes-

any

[			
Colour	RGB value	Missing colours	Complimentary
Red Yellow Green Turquoise Blue Magenta		Green and Blue Blue Red and Blue Red Red Red Green	•Turquoise •Blue •Magenta •Red •Yellow •Green
lemon orange olive violet	red 255   green 128   blue 0 red 128   green 128   blue 0	Some Green and prim Blue and 50% Green 50% Red and 50% Gr Small equal amounts more green	een, 100% Blue

#### So...

This demonstrates that colours can be considered by the processing of the incident colour,

- by its stimulus on the RGB cones, or
- the "percentages" of missing RGB colours "processed" within the cortex,

Summary

Complimentary

Sensitivity

colour

400

Blue

Perceived colour

Colours not stimulated

500

Red

green and blue

Blue

areer

After image

colour

700

red

We can also see that the "Missing" colours are also the "Complimentary" colours.

And what colour is the combination of missing colours? This is not only the complimentary colour, but also the colour of the "after image"!

In addition, from the data obtained from this website, we can calculate that these "computer monitors" can create 255x255x255 = 16,581,375(over 16 MILLION) different colour combinations from just these three colours! And the brain must have a similar scheme for their identification!

So, the question remains how do we see in colour? We have 3 primary colour receptors whose peak sensitivity is in the region of the spectrum that we describe as red, green and blue.

"compound" colour, (such as white light) which contains that red light, so the brain will not be aware whether the stimulus is red or white, (or any colour containing red)!

What is different to the brain is that red light will <u>not</u> stimulate green or blue receptors, whereas a "compound colour" will to a greater or lesser degree. The conclusion from this, is that the cortex identifies colour, <u>not by ob</u>serving the colour per se, but *by identifying the colours* 

that are *missing* from white light

#### Returning to the theory of syntonic phototherapy

Spitler identified a number of glass filter lenses that impacted on the human body and visual process in different ways and he designated these filters with Greek letters. He considered the autonomic nervous system like a balance board as described above. Now we previously considered how the primary colours interact to produce the secondary colours and we can progress this to designating the syntonic colours in this format, and that we identify colour by the "missing colours" so we can now suggest that part of the process of syntonic optometry is the function of NOT stimulating certain cells, perhaps by doing this we are allowing them

to, "using a computer term", reboot.

One of the problems that I found difficult to understand was the alpha omega filter and on the basis that red filters block blue, and blue filters block red. This aspect is used

600

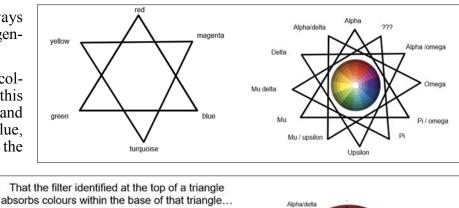
Red and

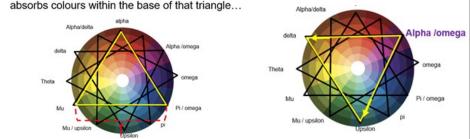
green

in anaglyphs and 3D imaging. So, I have always been puzzled as to how do we get that nice magenta colour.

When we look then at the concept "syntonic colour wheel" described above, we can see that this filter removes all the colours between Delta and Upsilon, but leaving the far red and far blue, which will combine to produce the appearance the colour we call magenta.

Now things are starting to make a bit of sense.





What have we discovered?

Sector occlusion	reduces cortical input	<u><i>can change</i></u> cortical output	can change autonomic balance
Syntonic filters	reduce cortical input	<u><i>can change</i></u> cortical output	can change autonomic balance
Coloured lenses/overlays	reduce cortical input	<u><i>can change</i></u> cortical output	can change autonomic balance
Lenses / Prisms	can change cortical input	<u><i>can change</i></u> cortical output	can change autonomic balance

#### Authors comment

This study is, as stated before, a personal investigation, and, as such may have significant errors in interpretation. I assembled this article together in order to create discussion and further study.

#### **About the Author:**

UK optometrist Geoff Shayler has been an enthusiastic supporter of syntonic optometry for over 20 years.

His research into syntonics has led to him publishing over 35 research articles and regularly lecturing in both Europe and USA.

Geoff was delighted to be the recipient of The H Riley Spitler Award in 2013.

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# **Finding Light During Dark Times**

#### Alia Santoyo-Johnson, O.D.

One unfortunate side effect from my TBI is memory gaps. Sadly, I have lost many of my childhood and youth memories. This is something I continually struggle with, but one memory in my life will never disappear. I remember July 21, 2001, 4:45pm, as if it were yesterday. It was the summer before my 1<sup>st</sup> year of optometry school and my last summer working as a clinical therapist. The last of my "old normal". My best friend and I were flying back from Canada. I recall how dark the sky was, as huge storms were moving in. The inclement weather almost caused us to miss our connecting flight. This was the flight that changed it all. I remember the flight attendant stating the importance of remaining seated with seatbelts fasten, and due to rough weather, no beverages or food would be served. I remember the sky being gravish and the ride being rocky; I most definitely recall pulling my seatbelt extra snug. I could sense the anxiousness of my best friend through all the turbulence. We discussed and reflected on how wonderful our time in Canada was and how we couldn't wait for our return there. I remember looking at people getting out of their seats, one guy fell in the aisle, and thinking, these people have no fear. The airplane, at that time was very bumpy and unsettling. There were repeated announcements about extreme turbulence and to remain seated. I recall staring out the little window and feeling a large drop. Our plane hit an air pocket, my seatbelt detached from the seat, and I hit my head on the air blower of the airplane. I remember the feeling of disorientation, fog, and pain. I always thought the term "seeing stars" was an exaggeration. I looked at the person behind me, and knew he was talking, but couldn't understand what he was saying. A few minutes later the plane dropped again, due to extreme turbulence and that is when everything becomes foggy. I hit my head a second time during the drop, only this time I blacked out. I do not recall anything from our landing or getting to the hospital. I don't recall what happened, how I got there, or what was said.

I remember being in the emergency room, my best friend beside me. We were in a different state, away from my family. There are no words to describe the amount of anxiety I felt. I had an idea of why I was there, but how did I get there? The severity of pain was indescribable, the feeling of nausea, disorientation, and photophobia. The ER physician came in and alerted me that my mother was called and on her way. In the meantime, "we're going to run some tests, give you something for your pain and nausea and we can send you on your way". I remember these horrible feelings of confusion. I

remember the frustration from the ER nurses when I couldn't fill out their forms, because everything looked scrambled together. Not only could I not recall, it was like I knew they were talking, but I couldn't process what they were saying. Everyone spoke too loud and too fast. I recognized it was English, but I was so distressed that I could not comprehend. I had a feeling of relief when my mom appeared. She always made things feel safe and better. She was filled in with what happened and talked to the doctors. I remember her at the bedside. "Alia, you hit your head twice, but everything will be ok". As I was being discharged, the ER doctor said: "you bumped your head, luckily there was no bleed, your CT and X-Rays are clear. You may have a headache, but you'll be good to go in a few days. You're lucky it wasn't more serious, you really could have been injured". We had a follow up with my family GP, and he said, "You'll be fine, you just bumped your head".

It's amazing how simple vocabulary can alter a person's state of mind. I, along with my family, thought I'd be fine, it was just a "bump of the head". My CT was clear, so I'm fine. I could not measure the amount of hopelessness after a week passed and I just felt worse, unlike myself. We made an another appointment, only to be told again, "it's just a headache, take some pain killers, get rest, you'll be fine". The struggle with insurance was horrible in getting other tests done. The medical insurance refused to pay, as it was an accident. The airline refused to pay, as I didn't file a claim on the day of the accident. We decided to pay out of pocket for everything, with the idea the airline would reimburse after litigation. I saw 3 different medical doctors, 2 neurologists, physiatrist, and a pain management specialist. Everyone said I was fine. The MRI is clear, the CT is clear, X-Ray is clear, so clearly you are fine. I will never forget the feeling of despair I had. My entire family couldn't "Alia, all comprehend what I was seeing and feeling. your tests are normal, maybe you're just anxious about starting school." I was told I was ok, but I felt the furthest from it. "Alia, we've seen numerous doctors, all your tests say you are ok". It was then they decided I should see a psychiatrist. I saw the psychiatrist and passed his battery of tests. "You are just fine, you need to give it time, I can give you medicine to help you sleep and calm you down". My family was upset every time I declined medicine. I could only imagine how much worse off I'd feel if I was on mind altering drugs, in addition to my other symptoms. Clearly, I needed to learn how to cope with all of these symptoms. But I had to question myself, was I imagining this, was I really ok? If all my tests were ok, and all these doctors say I'm ok, am I ok?

It is a fair assumption that I held on to hope because I was starting optometry school; I figured that my new school could help me. Despite all of my symptoms, I was very eager to start optometry school. School was something that always came easy for me. I was able to graduate college in 4 years with 3 degrees, and obtain a masters in 1 year. I worked hard in school, but I could retain information very well. I had a photographic memory; I could close my eyes and visualize my notes. Quite different from today, in which I can not recall without intense study and repetition. I loved to learn, I loved to read, and it was frustrating that now it was such a challenge. I knew they would understand why I was seeing double. They would understand why I had to hold on to a wall when I walked; they would understand why my floor was tilted down. They would understand that objects jump when I stare at them. They would understand why I can not comprehend what I read and why it They would understand why I felt like I was in hurt. constant motion. I worked for an optometrist during the summer of my accident. She assured me these symptoms had to somehow be related, and hopefully my school could offer some answers and suggestions. As I reflect back to starting school, it was a very challenging time. It was a challenge, mentally, emotionally, and physically. Sadly, the fantasy in my head differed greatly to my reality. Not only did I have this huge commitment to study and learn, my autonomy was stripped from me. I didn't feel safe driving. Here I was, an educated and grown professional woman, who had to rely on family members to drive her everywhere. I didn't trust the train or public transportation due to black outs. I couldn't ride the El train for fear of triggering a seizure. Emotionally, school was draining. I had to adapt from being fun and social, to isolated and quiet. As a result, my accident has decreased my judgmental side and increased my empathetic side. My classmates made cliques and study groups, I was a loner. While my classmates were having fun on weekends, I was in the hospital getting IV steroids to help break the pain cycle. At the time, as I tried to remain focused and positive, I felt like things continually got worse. First year orientation in itself was overwhelming. All these moving bodies made me nauseous, not to mention having to engage in conversation. It's pretty fair to say, I did not make a great first impression on my classmates. I couldn't remember anyone's name, I couldn't make eye contact, and I had to close my eyes and stay seated. Who knew a pattern of a carpet could make someone feel so nauseous? Here I was, first day with my future colleagues. My room was spinning, the objects and people around me were double and jumping, the floor was like a downward escalator, and I couldn't remember anyone's name. The instructor

was jumping side to side and I could not process anything she was saying. "This is normal first day jitters", I was told by the psychiatrist," it'll pass". Needless to say, it did not.

The time had finally come for my binocular vision appointment. I was so excited to be "fixed". I was in the pediatric department and following their protocol, started with a 4<sup>th</sup> year student. This poor student was so overwhelmed and annoved with me. I couldn't walk a straight line, let alone follow any commands. "I need you to keep your head straight and still", she repeated. Regardless of what I would say, I couldn't get her to understand that having my head tilted and to the side, helped me better manage and navigate. Frustrated, she left and returned with the resident. He was very kind. He reviewed my history. The common theme, "you hit your head, but your tests were clear" came up. Yes, but I am not ok, I stated. As I started to tell him my symptoms the head optometrist entered. She introduced herself and asked me to tell her my symptoms. I replied, "the floor is like an escalator moving down, I feel like I'm on a boat, I'm in motion, but cognitively I know I am not. And you, if I look at you, there are 2 of you and you keep jumping side to side. Life feels so much better if I close my eyes, and it's so much calmer not having to watch my surroundings. I've had this headache for over a month, I can't sleep, sounds bother me, lights bother me, and for the first time in my life, I hate being in crowds". I'll never forget the look on her face. She then asked me to read the eye chart, "which one?" I asked. Although I was serious, she was not amused. Next came my eye movements and convergence. Ugh, the feeling of shame on my part and disgust on hers, as I vomited attempting it. I am grateful for her, as I learned quite a bit about myself during that exam. This is the moment I learned to always give my patients the benefit of the As crazy as their symptoms may sound, or as doubt. crazy as they may seem, this is their truth, and their symptoms to bare. Not surprisingly, I was diagnosed as a CI, and approved for VT. Sadly, my VT only lasted 2 sessions. It was then, I learned to never start a concussed patient on the Brock string. Who knew a little string of beads could increase a headache and exacerbate diplopia? As a result, I was given a patch, which helped alleviate some of my symptoms. Due to the nature of my accident and ongoing symptoms, I had to meet with the Dean and The idea of dropping out of school administration. school was continually mentioned. The idea of successfully graduating, according to the Dean, seemed unattainable and impossible. I had the intuition that they felt I was malingering, although they never stated that word, it was implied. It was also suggested that it would be wiser for me to withdrawal versus fail out...neither were ever an option for me.

It would be a safe assumption to guess optometry school was very challenging for me. For the first time I was struggling in class, not making friends due to social awkwardness, getting poor grades, and being watched by administration. I was unable to drive, unable to sleep, and in constant pain. I also would find myself dazed out or waking up in situations I didn't recall being in. When I say I was very blessed to have 3 professors at school, it would be an understatement. I will not mention their names, but I am forever grateful for them, I probably would not have survived my first quarter without them. If you are reading this, please know that I would not be here today, if not for you. I would visit them during office hours and cry and pray with them. They offered other studying ideas and gave the suggestion of getting a tutor for each class. They also suggested getting yet, another opinion. The time came for my next opinion... another neurologist. When I count my blessings in life, he gets millions. He is one of the most kind and caring individuals I've ever met. He is now one of my dearest friends, and we work beautifully together in NeuroRehabilitation. This neurologist has specialties in movement disorders, stroke, migraines, and concussions. I brought my X-Rays, CT, and MRI with me. His staff was so kind. He, although very young, was an old school doc-He did all my vitals, he personally did my intake. tor. Later I learned that he starts his assessment as soon as he calls your name. He grades your attentiveness, your gait, your stability, and much more. This was a huge life lesson to me as well. I incorporate that into my practice He studied my CT, MRI, and X-Ray. now. He said. "these are all clear, not very helpful are they". He had me detail all my symptoms and recall what I remembered from the accident. He also ran an EEG to rule out any seizure activity. At the end of my visit I had a true diagnosis. He told me I had post concussive syndrome, visual midline shift, and absence seizures. As silly as it seems, I cried. I was so happy to finally have a name for all the misery I had been in. The feeling of relief to know someone believed me, and most importantly...I wasn't crazy. At the time, it was way over my head, but he explained concussion and vestibular disorders. I'll never forget calling my family, as I cried from his parking lot with my diagnosis. He and I decided a medical leave would be in my best interest. During my leave I sought alternate treatments, such as, acupuncture, Reiki, Shamanic, cranial sacral therapy, cupping, and massage. Everything helped, but I still wasn't 100%. I did learn the power of other treatment modalities. My life lesson from that was, it truly takes a team to help a TBI. We currently have an amazing NeuroRehabilitation team for our patients. I re-entered school a year later, feeling somewhat better. My seizures were controlled, my headaches were better, I could sleep, but my world was still in motion. Life was tolerable as long as I gave myself breaks and kept my eye patch on, or my eyes were

closed. I like to think, by the Grace of God, the professors, and my neurologist I made it through my first 3 years of school. I had challenges and opposition from administration but, I still made it through.

My fourth year rotation-what a journey! I was so fortunate to pick the Vision Therapy Center in WI. If you could close your eyes and imagine me typing this article with tears in my eyes, now is the time. Through my TBI journey, I have been blessed with the care I've received, the providers I've met, and the lessons I've been taught. There are no words, no synonyms, no adjectives to describe the amount of gratitude I have for The Vision Therapy Center, in Wisconsin. They changed my life and gave me my direction. I will be forever grateful. Picture a fourth year student presenting for clinic. I was very nervous and anxious, as I was away from my neurologist and family. Although I felt better, I still was a mess, I was good at hiding it. Well, so I thought. Mv first day there, I was asked if I ever had a concussion. "Why yes, I said, in 2001, is it obvious to you?" Ι should preface it by saying, although I passed all my externships with flying colors, every preceptor asked why I was "off". Things needed to be repeated to me, my speech was still slow, I had to be grounded or touching a wall, when I presented my cases or grand rounds my eyes were closed, oh and the eye patch too. TVTC had all these articles for me to read. They complied a list of signs and symptoms of post concussive vision syndrome, (PCVS). I had every symptom on the list. I was ecstatic, to learn, once again I wasn't crazy. Needless to say, I mailed this list to my family and neurologist. I had a neuro-rehabilitative exam done on me. We changed my prescription and added binasals. I felt better, but still not 100%. I still had nystagmus, people and objects were jumping, and I felt I was in motion, despite being still. I remember hearing Syntonic phototherapy would be a good treatment for me. They said I would be an ideal candidate and I should try it. I remember calling my neurologist and asking if it was ok to "stare at a light" with my seizure disorder. He gave his blessing and was curious as well.

The first time I completed a functional color field, it was as unpleasant as the Brock string. I found it very challenging and nauseating. I was in awe of how contracted my field of vision was. Flashback to my first Syntonic session-I remember sitting at a table in a dark room with Dr. K. There was a small white lamp with red colors, (it was so long ago, but I am guessing Alpha Omega). I remember being filled with anger and rage. I asked her if it was normal to feel like flipping the table over. She laughed, because if you know me, I'm very calm and peaceful. She changed the light to a beautiful blue. (I'm guessing Omega N). It's hard to explain the overall sense of calm and well-being. I felt calm, peace-

ful, still, but it felt like a change was happening. It's like you feel your muscles untighten and you can breathe. Granted I was seated, but for the first time in 4 years, I did not feel I was on a boat. After 10 minutes we changed to greenish blue, I'd assume (Mu Upsilon). This color remained calming and comforting. I could feel an indescribable feeling in my eyes. Suddenly I started to notice one lamp, and the lamp started to remain still. It was miraculous in my mind. I was filled with disbelief that I was seeing single objects, and these objects were still. This caused me to continually feel my face for the patch. The diplopia and nystagmus were gone for a few hours, but my hope remained strong. This treatment occurred during NBEO preparation and study. I would complete my 20 minute Syntonic session and then study. Studying was so much easier without diplopia and nystagmus. Each day I completed my session, my nystagmus and diplopia would stay away for longer periods of time, and I'd feel better. By the end I started to feel like my "old self", and I was able to be without the eye patch. I was amazed at how much my field opened, when they repeated my color field. During my rotation, they would have meetings with the doctors and vision therapists. I was walking to this meeting to get a seat and one of the therapists noted with joy, "oh my gosh, did you just walk without holding on to a wall?" I remember the initial feeling of panic. I was in the center of the room walking towards the table. I looked around and was in awe. After my Syntonic treatments, I was walking without a wall to hold on to and walking without support of a chair backing. For the first time in five years my world was stable! The ground was not a down escalator, I was not looking through a tunnel, objects were single, and best yet-nothing was moving. It was amazing! After the meeting I phoned my family and neurologist and told them about my experience. Needless to say, no one can truly appreciate an accomplishment like this except for the patient themselves. One of the best feelings, other than the birth of my children, was walking up and across the stage to obtain my diploma from optometry school. Not only was I proud of graduating in the midst of an TBI, but the fact that I walking unassisted up-stairs and onto a stage in a crowd of people was a gift.

As an Optometrist who works with special needs and brain injured populations, I often educate on having an "Attitude of Gratitude", and searching for purpose in incidents, (positive or negative), that occur in life. Thank you to the College of Syntonic Optometry for being such a diverse, fun, informative, and accepting group. Thank you to Irene and Ron. Thank you for the continued support from my family, my 2 best friends, and the continued care from my wonderful colleagues and dear friends in Oswego. A very special thank you to my brilliant mentor, Dr. Wallace, for teaching and guiding me on the hows and whys of Syntonic Optometry. I have been fortunate, in my short career to have encountered many col-

#### About the Author:

Dr. Alia Santoyo is a 2006 graduate of the Illinois College of Optometry. She currently works at Family Vision Development Center in Aurora, IL. She is a member of the Neuro-Optometric Rehabilitation Association, College of Syntonic Optometry, Illinois Optometric Association, and OEP. She enjoys working with all patients, however, her main focus is Neuro-Optometric Rehabilitation, Sports Vision, and Developmental Vision. Her true passion is traumatic brain injury; she enjoys working one on one with patients and watching them improve through neurorehabilitation and Syntonic Optometry.

Dr. Santoyo is also a health and wellness educator. She not only educates her patients, but lectures on the importance of nutrition and healthy lifestyle habits. She is a certified yoga and meditation instructor, which she also incorporates into her treatment programs. Dr. Santoyo is excited as she is applying for her CSO fellowship this year, as well as a certification for Sound Healing Therapy.



leagues who have offered guidance and friendships. I am beyond thankful for that. I'd also like to thank my patients for allowing me to share my passion and trusting in me. I'd be remiss if I did not thank the two optometrists, Dr. Knueppel and Dr. Frazer for changing my life for the better, and showing me exactly why my accident happened. I describe myself as dedicated, determined, intuitive, grounded, and very spiritual. After I left the field of psychology, I felt it was my calling to become an optometrist. I was meant to do this. I was meant to be there. I continually repeated the verse, "if He takes you to it, He'll take you through it". I graduated in 2006, and continued my learning and quest for Developmental Optometry and NeuroRehabilitation. The saving is true. "once you've seen 1 concussion patient, you have seen 1 concussion patient". That is to say, no TBI is the same. I am very fortunate as a provider, to have a greater empathy of my patients' symptoms and experiences. It is very rare for me to share my story with patients. I generally reserve my journey for patients that feel hopeless or crazy.

I eventually weaned off of all my medications, and started my Syntonic Optometry journey as a practitioner. I am sure there is research out there, and I've learned in various meetings, that once you've had a concussion, you may be prone to more. Unfortunately, this was the case for me. I battled almost dying giving birth via c section in 2013, followed by a car accident in 2015. Each accident offering different symptoms and set backs. Life is a bit more challenging to care for yourself when you have babies to attend to. Each time I could rely on Syntonic Optometry for help. This past summer, I was fortunate to have my life changed, yet again, with the sensory learning program. That will have to be a different story for a different day. The key take home from my experience is, TBI is a multi-symptom journey. There are physical and emotional effects. Like most diseases, not only does it affect the individual but their family and friends too. During my journey I was dumped, lost friends, judged as a malingerer, labeled as antisocial, and questioned myself. It seems the beauty of Syntonic Optometry, for me personally, and a majority of my patients as well, was that it not only helped with my pain and ailments, but helped heal my broken soul. I look forward to 2019 as I apply for my Syntonic Optometry fellowship, open my healing center, and hope to engage in research and help spread more knowledge and acceptance for Syntonic Optometry.

To all of my healing colleagues, know that Syntonic Optometry is an added advantage to your practice, and it is life changing for patients and their families as they find their way through their "new normal". In love and light, Namaste.



# The College of Syntonic Optometry Expands into Asia

#### Dr. Mary Wong VanHoy, FCSO, FCOVD

What an incredible honor it was to be part of the CSO faculty presenting the Inaugural CSO 101 Course in Ouezon City, Philippines (suburb of Manila) with the President of the Australian College of Syntonic Optometry, Dr. Simon Grbevski and myself as the Immediate Past President of the International College of Syntonic Optometry. We presented a twoday course following their 2019 Annual IPAO (Integrated Philippine Association of Optometrists) Conference. The IPAO is the only nationally recognized association of optometrists practicing in the Philippines and under the leadership of their current president, Dr. Charlie Ho, of the Vision Science Institute.

There were twenty-four op-

tometrists in attendance with two from Malaysia and the remaining optometrists from across the Philippine Is-

lands. It was so exciting to be a part of this historic moment with these twenty-four "Pioneers of Light Therapy" eagerly absorbing this newest optometric tool to add to their growing "optometric toolbox" to better serve their patients. Among these Asian optometric colleagues were the immediate past president of the IPAO, Dr. Elizabeth Baculi Valconcha, as well as the current Dean of the Manila Central University School of Optometry, Dr. Christine S. Rodriquez.

Dr. Charlie Ho, organizer and one of the first CSO members from the Philippines, is the founder and director of the Vision Science Institute. This unique clinic partners with the Philippine Schools of Optometry of which there are eight in the country to teach their residents about behavioral/neuro-developmental optometry and how this specialty can offer such



profound differences in the level of optometric care currently being offered in the Philippines and Asia.



Dr. VanHoy & Dr. Grbevski each presented two hours of lectures on optometric syntonic-related topics to the IPAO as Keynote Speakers prior to the CSO 101 course.

Not only does Dr. Ho see his own private patients and teach optometric residents, but his primary interest is in Sports Vision and he has been appointed by the President of the Philippines to the Philippine Olympic Committee. His office is housed in an impressive busy office complex that spans two floors. His third-floor office shares space with a physical therapy/sports training center down the hall from his sports vision training clinic. The second floor has an orthopedic clinic specializing in sports medicine! The first floor of this busy clinic also houses a continuing education center for the Integrated Philippine Association of Optometrists as well as Dr. Ho's and Dr. Maia Uy's (his associate) pediatric behavioral vision clinic. What a phenomenal model for his Asian optometric colleagues to emulate!

Dr. Grbevski and I teasingly called ourselves the "Yin and Yang" of the CSO 101 Course! We reviewed the history of light therapy in all areas of health care and then focused on light as medicine within our own specialty of optometric and neuro-optometric care for patients of all ages. Utilizing the Power Point slides from all six of the CSO 101 faculty which includes Drs. Larry Wallace, Ray Gottlieb, Rob Fox, John Pulaski, Phil Bugaiski and myself, our attendees had the advantage of receiving the contributions of each of our International College of Syntonic Optometry materials, photos, and clinical pearls rather than being limited to just the two This gave the attendees the distinct adpresenters. vantage of learning from a wide range of experienced optometric syntonic phototherapy practitioners and seeing various viewpoints and ways to apply this powerful but gentle treatment modality.

Theory without hands-on experience can often be the difference between shrugging your shoulders and saying, "Well, that was interesting!" or rubbing your hands together with excitement and eager to return to your office the following day to put theory into action! The second day was devoted primarily to abundant hands-on experience with a variety of optometric syntonic tools for evaluation and monitoring of progress with optometric syn-Hummingbird Hues, Dr. Simon tonic phototherapy. Grbevski's innovative syntonic tools, as well as the Optomatters goggles and supplemental augmentative light therapy home units to supplement the CSO endorsed syntonizers were experienced by each of the eager attendees. We also covered the measurement of the functional visual fields, the Alpha Omega Pupil and the Brock versus Butts String measurements.

Under Dr. Charlie Ho's capable and passionate leadership, I seriously think Asia will soon surpass the US and Australia for the number of optometrists actively utiliz-



Dr. Charlie Ho, Sponsor of the CSO 101 Course in the Philippines, who is also the current IPAO President and Director of the Vision Science Institute.



Dr. Maia Uy, of the Vision Science Instituteas well as President of the Bohol Chapter of IPAO, enjoying a break with me between sessions.



The 2019 Annual Conference of the Integrated Philippine Association of Optometrists.

ing optometric syntonic phototherapy in their practices for adthe vantage of their patients across Asia! Dr. Ho has already pulled out his 2020 calendar to check availability of spots to add Optometric Syntonic Phototherapy to their topics for their biennial Optometric Congress or AOC in Kuala Lumpur, Malaysia! (Similar to the ICBO - - International Congress of Behavioral Optometrists which is held every four years). This man allows no moss to grow under his busy feet! Look out Optometric World! Asia, the Sleeping Giant, has awoken to Optometric Syntonic Phototherapy!



**Butts String Demo.** 



Drs. Ho & Grbevski discussing Sports Vision during a break.



Measuring Functional Visual Fields.



The Inaugural Philippine CSO 101 Doctors experiencing Optometric Syntonic Phototherapy.



The 2019 Inaugural Philippine and Malaysian CSO 101 Attendees. True Pioneers and Keepers of the Light.

Journal of Optometric Phototherapy

### **Sound Healing and Syntonics**

#### An Essay by Jerry Wintrob, O.D.

In September 2017, I enrolled in a 9-month course in sound healing at The Open Center in New York City titled "The Integrative Sound and Music Institute." I wanted to understand this modality in more depth and find ways to utilize it in my vision therapy practice. I have used many techniques including Syntonics for more than 30 years, but never sound healing. As various methods of sound healing have been used since ancient times, I wanted to see if I could find a way to incorporate it, to find another window into the treatment of my patients.

The course was held during 9 weekends spread across the year and served as an introduction to various sound methods including voice, drumming, chanting, music therapy, and the therapeutic use of tuning forks. This last technique, using tonal vibration through the use of tuning forks to heal, was a method that was new and compelling to me. The teacher was a researcher and practitioner named John Beaulieu, a PhD psychologist and a naturopath. He spoke of the use of tuning forks as a means to balance the autonomic nervous system to make the patient's system more amenable to change, an approach that is not that different from Syntonics. He uses many different resonances, but his mainstay is pairing forks that vibrate at the notes C and G. In music, this is known as a perfect fifth.

Dr. Beaulieu states that "the fifth note has played a role in many ancient teachings: the Chinese philosopher Lao Tzu referred to the fifth as the sound of universal harmony between the forces of Yin and Yang. In India, the fifth is believed to create a sound through which Shiva calls Shakti to the dance of life. Apollo the Greek God of Music and Healing, plucked the fifth on his Sacred lyre to call dolphin messengers to Delphi where they channeled messages to the oracles. The Alchemists called the interval of a fifth crux ansata and considered it to be a transition point where matter crossed over into spirit. The crux ansata, also called the anak by the Egyptians, is a still point where the earth ends and our ascension into spirit begins. " (the reference for this quote is from Dr. Beaulieu's website, biosonics.com)

Dr. Beaulieu explained to us that this combination taps into the 10<sup>th</sup> cranial nerve, the vagus nerve. The vagus controls major regulatory systems in the body such as heart rate, respiration, and digestion. Therefore, it has a far-reaching effect on all bodily systems. I was convinced. I saw no reason not to give it a try. I felt that if it could aid in creating autonomic balance in the patient, it had the potential to enhance Syntonics and, thereby, might profoundly affect the outcome of my cases.

I decided to try this combination on my patients. It is a very simple process and takes just a couple of minutes. You tap the forks against your knees and then hold them close to the patient's ears, with the C fork near one ear and the G fork near the other. You wait until the sound dissipates, switch the hands the forks into the opposite hands, and repeat the process.

I decided I would try this technique with some of my more difficult cases. I used it during therapy, much as I do with Syntonics. I initially tried it on a double postsurgical 6-year-old esotrope. She had been in therapy for more than a year. Her Syntonics prescription was Alpha Delta 20 minutes per day using home filters and a weekly in office treatment once per week of 10 minutes, using the college machine. I was ready to dismiss her, as her progress had plateaued, showing a cosmetic improvement but minimal binocularity. I theorized that her age and resistance to change resulting from the extensive nature of the surgeries made her case close to impossible. I tried it on her for one session of the tuning forks. I was shocked when I found her able to hold the Mother Goose vectogram fused to the maximum level in both the BO and BI directions, with excellent identification and localization. She had never accomplished anything close to this. Her awareness of binocularity with significant depth had dramatically improved. Excited, I decided to do it on all my postsurgical tropes. Again, literally across the board, I saw dramatic improvement.

I had my patients purchase pairs of tuning forks for home use. I instructed the parents to perform a session with each patient twice a day, in the morning upon awakening and in the evening before bed. The improvements were holding even without doing the forks in the VT sessions. I then purchased forks for almost all of my patients. At the time, I had around 40 weekly vision therapy patients. As we know, with Syntonics, we often get amazing results, but the two of these combinations have been extremely successful.

Below, I have referenced a few of these cases.

Schmiel is a 14-year-old Orthodox Jewish boy. His schooling is very rigorous, and he is in school 12-14

hours per day. If his schedule wasn't challenging enough, his visual findings presented a very difficult case. He has had 2 strabismus surgeries and now presented as a moderate hyper esotrope. He was coming for weekly vision therapy. With all my cases, I have them do 20 minutes of daily home Syntonics. I believed that his case had a significant emotional component, so his daily syntonic prescription was alpha omega for 10 minutes followed by alpha delta for 10. He also did an in office treatment of just alpha omega on the college machine for 10 minutes. In discussing cases, it, of course, is difficult to know which intervention caused the change, or whether it is the combination of interventions that produced the change. I introduced the C and G tuning forks after about 4 sessions of therapy. In my experience, patients like Schmiel often have poor results from therapy. The strabismus surgery is so invasive that it is very hard to get a good outcome. I was pleasantly surprised when after about 12 sessions he began to show fusion, stereo, and an appreciation of depth. His mood had changed. His anger had dissipated. His mother reported seeing a large improvement in his performance at school. There is no question in my mind that the tuning forks were the deciding factor.

Finn is a 10-year-old boy enrolled in a local public school and is in the 5<sup>th</sup> grade. His findings revealed a convergence insufficiency. He also suffers from sensory integration issues. I have found cases like Finn to be relatively straightforward in my practice. Usually, with an intervention of vision therapy and Syntonics, my patients show very good outcomes. His Syntonics prescription was mu upsilon for 20 minutes per day at home and 10 minutes in office at his weekly vision therapy session. I was surprised when Finn appeared to be hitting a wall. No matter what we did, he was having trouble fusing and achieving adequate stereo. Then I introduced the tuning forks. Finn began to slowly show progress in identification and localization. I didn't attribute the progress to the tuning forks, as I have seen many patients through the years plateau at some point and then begin to improve again. One day while he was in therapy, we were asking him to do the Clown vectogram. As many of you know, this is a fairly straightforward task for a patient with this diagnosis. He was unable to fuse past the beginning of the exercise. He asked if he could use the tuning forks. We gave it to him and he sat down and did the sequence, C and G, one adjacent to the left ear and the other adjacent to the right ear, then switching the forks to the opposite ears. He then was able to fuse them to the highest level. Astonished, I asked him what happened. He said that the forks give him energy to use his eyes together.

I do occasionally employ the forks during therapy, but as I have used them only for a few months, I have not integrated them fully into my weekly vision therapy practice. I may have patients do Syntonics followed by the forks in each session before or during therapy.

My last patient is Sam, he is a convergence excess case. He is currently in vision therapy weekly. His Syntonics prescription was to use mu delta at home for 20 minutes per day and 10 minutes in his weekly vision therapy session. I introduced the tuning forks to him about a third of the way into his therapy. He is 12 years old and his CE was particularly resistant because of the long period of time over which he has experienced symptoms. His mother found that there was a marked change in his improvement in therapy when the forks were instituted. However, she also saw a shift in attitude. His desire to read and concentration showed a direct correlation with the beginning and daily use of the forks.

I believe that the use of the tuning forks is the key factor in all of these cases and produce an increase in the

#### **About the Author:**

Dr. Jerry Wintrob knows the symptoms and hardships of vision-related challenges firsthand. He also knows the relief and joy of effective therapy treatment.

When Dr. Wintrob was a child he suffered from a turned eye. His parents were insightful enough to enroll him in a vision therapy program and over time his problem was corrected. At the same time, it was discovered that he was nearsighted and needed glasses. His dependency on glasses was never addressed and his prescription continued to increase. When he became involved in optometry and vision therapy, he began to do exercises for himself.

Dr. Wintrob received his Doctorate in Optometry from the State University of New York College of Optometry in 1983 and has been in private practice for more than 27 years.

He has been featured on Gray Null's *Alternative Vision Video* as seen on PBS and has appeared on Fox's Good Day New York as an expert on computer eye strain.

Dr. Wintrob is the author of the "Vision ad Emotion" chapter in The Whole Mind.

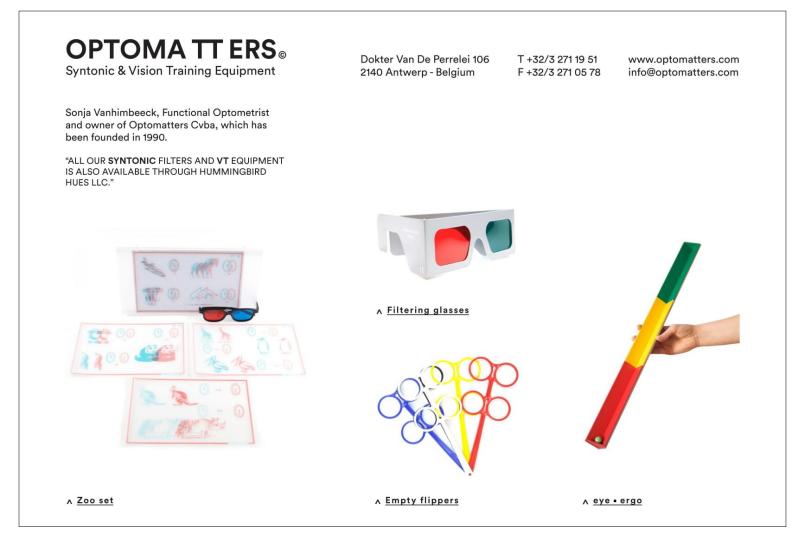
physical, emotional, and energetic balance that we are seeing. They have had a synergistic effect on these cases, increasing the efficacy of the other therapies.

Now the question: Why did this happen? Dr. Beaulieu believes that when the forks are struck, sound is transmitted to the auditory thalmus and subsequently to the vagus nerve, as stated above. The fact that the vagus is so pervasive throughout the body, the balance attained is extremely powerful. I believe that Syntonics, although a very potent modality, is being transmitted through a faulty visual system, and that faultiness may possibly affect its ability to be absorbed. In tuning fork therapy, we are using the auditory system, a conduit that has not been damaged by surgery or processing issues. As a result, the information can be transmitted more cleanly and seems to work synergistically with the visual system.

I have dedicated my career to the use of Syntonics, and I believe that it is the method that has been the most powerful treatment for many of my patients. However, when the tuning forks and sound in general are used in conjunction with Syntonics, there is an additive effect that produces an enhancement of both modalities. I believe that sound healing, an ancient modality, can be used successfully and be easily incorporated into the Optometric practice. In the future, I plan to correlate the syntonic filters with specific sounds. I am hoping to create syntonic/tuning fork prescriptions using the syntonic theory as the basis and then finding the corresponding tuning fork pairing. Dr. Beaulieu and I have begun work on this project. I hope to keep our community abreast of my progress in this modality. I am looking forward to expanding the use of tuning forks and other methods of sound healing in my practice and to finding other ways to tap into our patients' visual systems to ultimately affect the change we are seeking.

For those interested in reading more on this topic, I would suggest two of Dr. John Beaulieu's books –

- Human Tuning Sound Healing with Tuning Forks *By John Beaulieu and Pamela Kersage*
- Sound Healing and Values Visualization Creating a Life of Value *By John Beaulieu and David Martinez*



# Sharing the Light with Our Next Generation of ODs

#### Dr. Mary Wong VanHoy, FCSO, FCOVD

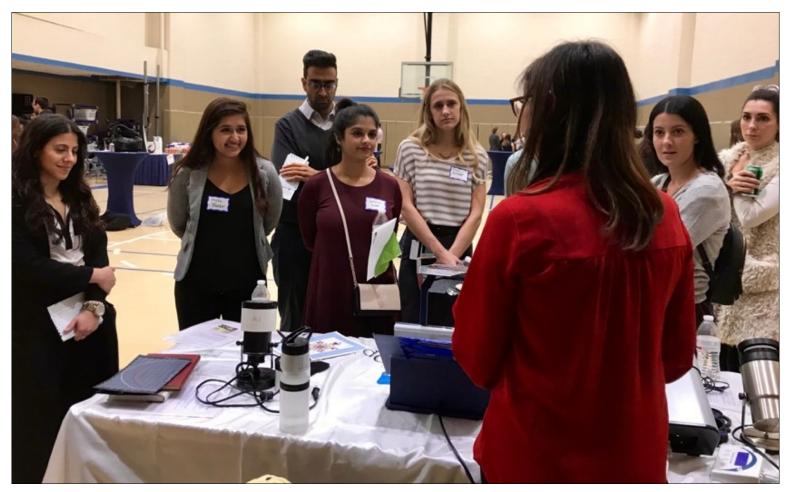
In December, Dr. Alia Santoyo and I joined other optometric organizations at the first Behavioral Optometry Exhibit for the Illinois College of Optometry students.

We showcased a variety of optometric syntonizers including the C & J instrument, Dr. Simon Grbveski's Spectron, and Rainbow-Flash's narrow band frequency instrument, the Photonwave. We also exhibited some of the home units available from Hummingbird Hues as well as home units made in my office with Roscolux filters and a small lamp.

It was indeed gratifying to see the keen interest in this totally new concept to the ICO students! Each student who visited our exhibit table wanted to experience the syntonizer and had all kinds of questions! We encouraged them to take advantage of the free student membership in CSO as well as try to attend our annual meeting in St. Pete Beach in May.



The "colorful" team representing CSO at ICO.



Dr. Santoyo sharing how Syntonics saved her life and optometric career!

We also had a few alumni in attendance and they, too, were new to the concept of optometric syntonic phototherapy and intrigued!

Just browsing some of the social media groups on Facebook will convince you that optometric syntonic phototherapy is definitely gaining more and more exposure and acceptance as a viable clinical tool, but we still have much sharing of this unique optometric tool for the enhancement of our patients' rehabilitation! Let's each one reach one with this powerful light therapy!



ABOVE: Plenty of resources to share with the ICO students and alumni.







COVD President, Dr. Dan Press, eager to learn more about Optometric Syntonic Phototherapy!



Journal of Optometric Phototherapy

#### Light Therapies: A Complete Guide to the Healing Power of Light

By Anadi Martel Foreward by Jacob Israel Liberman, O.D., Ph.D.

LIGHT

**ANADI MARTEL** 

THERAPIES

A COMPLETE GUIDE TO THE

HEALING POWER OF LIGHT

FOREWORD BY JACOB LIBERMAN, O.D., PH.D.

AUTHOR OF LIGHT: MEDICINE OF THE FUTURE

A comprehensive guide to the therapeutic benefits of light and color and how they affect our physical and psychological wellbeing.

- Shares scientific research on how different wavelengths of light influence our cells, brain function, sleep patterns, and emotional stability
- Examines several forms of light therapy, including chromotherapy, heliotherapy, actinotherapy, and thermotherapy
- Explains how to use light and color therapy, maximize the benefits of sunlight, and avoid the health risks of new light sources such as compact fluorescents and LEDs

#### Beginning with sun worship

in prehistory and sunshine therapies in ancient Egypt, Greece, and India, light has long been associated with the sublime, the divine, and healing. Yet only recently have we begun to understand how different parts of the light spectrum, from infrared to ultraviolet, can affect our physical and psychological well-being.

Covering the historic, scientific, and spiritual aspects of light and its role in energy medicine, Anadi Martel explores the vibrational nature of light and the interaction between light, biology, and consciousness. He demonstrates light's incredible effects on the physical, energetic, and cognitive dimensions of life and examines several forms of light therapy, including chromotherapy (color therapy), heliotherapy (sun therapy), actinotherapy (ultraviolet therapy), and thermotherapy (infrared therapy). He details how to use light therapy daily, get optimal benefits from sunlight, and avoid the health risks of new artificial lighting such as compact fluorescents and LEDs. Combining his own 30 years of research with practical insight from the many phototherapy pioneers he's encountered, the author examines scientific studies on how specific wavelengths of light influence our cells and DNA, brain function, sleep patterns, and emotional

stability; speed the healing of wounds; and are effective in the treatment of disease, including arthritis, stroke, Alzheimer's, Parkinson's, and brain and nerve injuries. Exploring the spiritual aspects of light, the author explains why auras and halos have been used to represent sages and saints of all traditions, revealing the intimate link between light and consciousness.

Investigating the many laser, monochrome, audiovisual, and infrared machines designed to heal disease and treat emotional disorders, Martel also reveals promising medical applications for light that are currently in development, inviting the reader not only to appreciate the complexities of light but to maximize its therapeutic dimensions.

A French version of the book is also available.

#### About The Author:

Physicist and expert in electronics, Anadi Martel designs experimental instruments for use in the exploration of sound and light. He also acts as a consultant for special projects for diverse organizations such as IMAX, Cirque du Soleil and the Met-



Anadi Martel

ropolitan Opera of New York. His sound spatialization devices have been used throughout the world, by internationally renowned artists as well as by NASA.

Early in his career, he became interested in the interaction between technology and consciousness. His thirty years of research in this field brought him to the creation of the multi-sensorial Sensora system, which he continues to develop in his laboratory in Quebec.

Considered to be one of the most advanced systems in the world in this field, the Sensora combines audio,

**Historical Perspective** 

#### HISTORY OF THE COLLEGE OF SYNTONIC OPTOMETRY

Historically, the complete systematized utilization of selected light frequencies by optometrists dates back to the first class taught by Dr. H. Riley Spitler. The class was composed of optometrists in southwestern Ohio and northern Kentucky. Many of them had previously heard of Dr. Spitler's work and researches and of his application of the principles he had learned in his own practice. The course of instruction began in September, 1930, and was completed late in October of the same year.

During the course, the question was many times asked of Dr. Spitler if his technique had a name, and in what manner it should be described to patients. It was then agreed that each member of the class should come prepared with name proposals to the next class meeting. Several were proposed, but the word SYNTONICS, proposed by Dr. Spitler, was voted upon by the class and accepted as a properly descriptive name for the science and art being taught. All agreed to so describe it in the future and to make every effort to restrict its use to those who had completed a proper course of instruction in the system under Dr. Spitler. The word was thus formally adopted on September 26, 1930, as the name of Dr. Spitler's science and art of optometrically applying morphological analysis, nascentization and selected light frequencies to the eyes of patients for the emendation of the visual sense, directly and through the associated and supportive functions thereof.

Having adopted a name for the system it became apparent that a specialized terminology was also needed. The basic name, a combination of two Greek roots meaning "like" or "similar" and "tone" or "frequency rate", visual and kinesthetic stimulation to produce a profound integrative experience, effective as therapeutic support in numerous clinical applications.

During seven years up to 2018, Anadi Martel was president of the International Light Association (ILA), a group of researchers exploring the therapeutic applications of light. The ILA acts as a bridge between leading scientists offering their latest research, and the practitioners of the diverse forms of Light Therapy.

was found to be capable of formation into adjectival, adverbial, verbal and other noun forms. The adjective forms are "syntonic", "syntonical" adverb form, "syntonically"; the verb form "syntonize"; and the noun forms, "syntony", the state of being syntonized, "syntonizer", the instrument used in applying the technique to the patient, and "syntonist", the optometrist who had completed a course of instruction under Dr. Spitler in SYNTONICS. The forgoing forms were presented to the class and were subsequently adopted by it for restricted use to those who had completed the course of instruction as given in the science and art of Syntonics by Dr. Spitler

The college held its first formal annual meeting January 15, 1933, under the name of the Academy of Optometric Syntonics. On November 1, 1933, the college incorporated in the State of Ohio under the name of the College of Syntonic Optometry.

Syntonics continued to grow and develop under the direction of Dr. Riley Spitler until his death on November 11, 1961. During these years, the Syntonic research material was disseminated through educational courses offered by Dr. Spitler, and through the official college publication, called the Syntonogram, published from 1934 to 1961.



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### **About The Cover**

Dr. Lewis E. Mock II is pictured in his role as "Doc the Piano Player" at the Long Branch Variety Show in Dodge City, Kansas, where he and his wife, Rosemary Mock, ran the variety show for the tourists from 1958 to 1967 as the original Dodge City Kitty and Doc. They founded the variety show, carefully researching entertainment in the 1880s, in order to develop the show's format. For over 50 years, this model has continued to be used for the stage show, which is now the longest running variety show in the nation's history.

As part of his costume, Dr. Mock wore a variety of old-fashioned dark-lensed spectacles, which he obtained

through his contacts as an optometrist. He is credited with creating the "Please Don't Shoot the Piano Player" sign visible in most photos of the early shows.

Dr. Mock graduated from Southern College of Optometry in Memphis, Tennessee and practiced in Greenville, Mississippi with his brother, Dr. Wiley H. Mock, in 1941. From 1946 to 1986 he practiced optometry in Dodge City, Kansas, specializing in children's vision.

During his career, he served as secretary for the Kansas Optometric Association and as a director of the Kansas Optometric Association Extension Post-Graduate Program. For 16 years, he served on the Board of Education in Dodge City, Kansas. He also served for eight years on the Board of Directors for the College of Syntonic Optometry.

His daughter, Melody Mock Durso, graciously donated his College Syntonizer to CSO to be placed in the CSO library.

Melody recalls some memories of her Dad:

"One of my fondest memories every summer was of Dad coming home from a long day at the office, where he worked as an optometrist,



eating dinner and then driving down to the Front Street Replica with Mom and us kids to perform his nightly role as ragtime piano player and accompanist for the Long Branch Variety Show. Despite his quiet nature, Dad gave the show's opening monologue and then asked the audience to identify their states of origin, after which he would play that state song from memory (he knew all 52). Dad performed many historical rag time songs and also accompanied Miss Kitty and the cast in their songs and dances, many of which were written or choreographed by Rosemary Mock herself.

Every summer for nine years my parents performed nightly without a break. They were regarded as the role models for all who followed them. The final summer of performances, all four children joined them in the show."

## **Awards and Accomplishments**



Congratulations to Danielle Bianco, O.D. for receiving her CSO Fellowship!

> Ray Gottlieb, Danielle Bianco, Hans Lessmann 2018 Salt Lake City

#### Congratulations to Deborah Summers for receiving the Charlie Butts Award!

Deborah Summers, Ray Gottlieb, Hans Lessmann 2018 Salt Lake City



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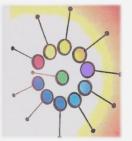


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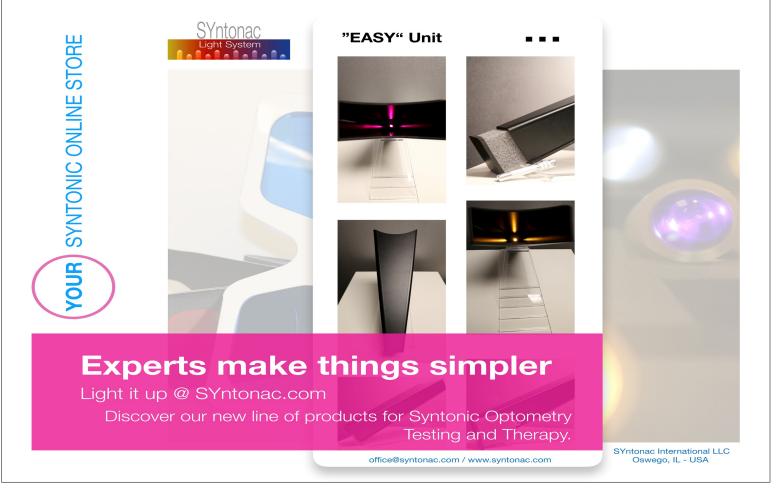
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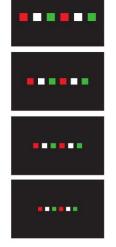


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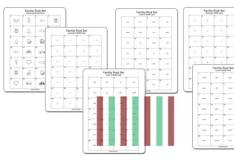




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### 87<sup>th</sup> International Conference on Light and Vision speakers:

Advances in Understanding the Autonomic Nervous System by Ray Gottlieb, O.D., Ph.D., FCOVD, FCSO "Shedding "Light" on Brain Injuries" by John Pulaski, O.D., FCSO and Robert Fox, O.D., FCOVD, FCSO Photon Wave and Treatment by Mary Van Hoy, O.D., FCOVD, FCSO

Advanced Clinical Applications by Larry Wallace, O.D., Ph.D., FCSO

Out of the Blue; Discover How to Treat Concussion by Brenda Montecalvo, O.D., FCOVD, FCSO

Light and Consciousness by Anadi Martel, Physicist

The Biological effects of the Electromagnetic Spectrum: From 5G to UVB by Mada Havas, Ph.D.

**Cerebellum, Eyes and Syntonics--helping diagnose , manage and treat concussion/TBI** by DeAnn Fitzpatrick, O.D.,FCOVD, FNORA

Mysteries of Gamma Brainwaves: A New Frontier in Audiovisual Stimulation? by Anadi Martel, Physicist

"Just One Drop " Film by Laurel Chiten, Producer/Director, Blind Dog Films

**Case Study: Using Syntonics to Improve Visual Field Loss Post Brain Insult** by Brenda Montecalvo, O.D., FCOVD, FCSO

Dopamine/Light /Vision by Simon Grbevski, Optom, FCSO

**The Light in Your Life - Building the Case for Lighting Evaluation Field Therapies: Source and symptoms** by Nishant Matthews, M.A.

Advances in Photo-medicine by Larry Wallace, O.D., Ph.D., FCSO and Ray Gottlieb, O.D., Ph.D., FCOVD, FCSO