

hygienic darkroom retreat



profound rest for the self-healing psyche

andrew durham

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Andrew Durham

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*For late friends,
Lisa Saavedra and John Rosenberg,
who burned bright in a benighted lifeway
and so fell long before their time;*

*And my brilliant, life-imprisoned cousin,
Damon Durham,
on whom the sins of our fathers
are so heavily visited
these decades of hard time.*

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blurb

relief, rest, recovery

A hygienic darkroom retreat consists of extended rest in a totally dark room. One is alone, with supporters nearby. There is food. The room is quiet, comfortable, and well-ventilated.

Why do this? For:

- relief from distress and overstimulation
- rest from exhaustion and depression
- recovery from trauma and disease

This is a complete manual, with theory, protocol, and design. It explains why retreating works and how to do it. It includes drawings and instructions for beginning at home.

toward a hygienic psychology

Neither spiritual, therapeutic, nor psychedelic, this is the first approach to darkness based on hygiene. Hygiene is the science of health, a branch of biology. It respects life's self-preserving nature. It identifies life's normal conditions: air, warmth, work, relationship, cleanliness, etc.

Hygiene started in 1832 and rapidly spread worldwide. The 19th century's famous improvements in public health resulted. Now its rudiments are common sense. Billions who never see doctors benefit from hygiene daily. But few know it formally—or its greatest benefits.

In darkness, hygiene finds its missing link: a psychology. Now hygiene can extend its superlative care to the organic system of the psyche. This proves to be the key to health. The result: reliable miracles.

notes

This book is an integrated whole. It presents the idea immediately in brief, then in detail. Every word contributes to understanding, including the blurb, dedication, etc. Each paragraph builds upon the last.

This book has links. On the web, they are colored. In the ebook and print, they look like this:

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foreword

This book comes out of an investigation into the cause of joy.

At 15, great joy spontaneously overcame me. It felt *normal*. But after three heavenly months, it disappeared. My other concerns seemed empty. The need to solve this mystery gripped me.

After 21 years of investigation, I did. Others had discovered the destroyer of joy: cataclysmic trauma. I discovered the self-healing power of the psyche and the essential condition nature provides us to heal: darkness. More than a decade of testing, refinement, and documentation followed.

Briefly, joy is a function of being alive, not effort. Lack of joy indicates a damaged system, not moral failure. Given conditions of profound rest, this damage heals by itself, and joy returns.

It's that simple. We are all days away from a return to happiness, health, and peace. My condolences to the founders of world religions for either getting it wrong or explaining it so badly.

Effort, our lifeway's smug panacea, gives false and fleeting results. With the will, one can do nothing directly to restore joy. One can only provide proper conditions. The organism does the rest autonomically.

For 10,000 years, we civilized people have correctly ascertained that something is terribly wrong with ourselves and that we must do something about it. But we have mistaken which part of ourselves must do it. At long last, this book puts the issue *to rest*.

preface

When I first retreated in darkness, I just did it to rest. It worked. After 56 hours, I felt caught up on all the sleep I had ever lost, truly awake for the first time in decades. I was stunned.

Two years later, the same thing happened. Except, unusually, I also felt humbled. Genuinely calm. *Well* in my soul.

This sense of psychic health stayed with me for months. But how, after a lifetime of depression, alienation, and anxiety?

From hygiene, I vaguely remembered the self-healing nature of life, and rest as the primary condition of healing. The onset of middle age was daily demonstrating the organic nature of the psyche to me. One morning in a dream, these clues fused in a conception of *the restful use of darkness in support of the self-healing psyche*.

I began testing this idea in more darkroom retreats. As predicted, lethal psychic issues that have tortured me for a lifetime began resolving themselves spontaneously. In 10 years and 25 retreats, I have seen no sign of an end to this process—short of full recovery of psychophysical integrity.

Now I feel confident about what I have learned: what happens in darkness and why; how to retreat and what for. And I can only go further in this by sharing this approach. It needs more participation, resources, and velocity.

Hygienic darkroom retreating requires minimal effort and no faith. Darkness is not a void, but a sanctuary. It is not the absence of light, but the presence of the self. It is yours.

ad
Europe, 2019

introduction

In civilization, we are:

- over-stimulated and distressed. We need relief.
- exhausted. We need rest.
- hurt and sick. We need recovery.

How? By *hygienic darkroom retreating*: profound rest in total darkness for the self-healing organism. It is a rational method of switching off the world, with its noise and demands. One takes refuge in the deep self, supporting it in healing itself by itself. This book is a complete manual for understanding and doing it.

basics

how it works

1. The psyche, as an organic system, is self-healing.
2. The primary condition of healing is rest.
3. Profound psychic rest occurs in extended total darkness *as a physiological response*

Because the process of healing is automatic, it is foolproof. The psyche needs darkness for rest like lungs need air for breathing and eyes need light for seeing. It knows no substitute. Healing happens involuntarily—by itself—when conditions of rest are sufficiently provided. This is fully developed in [hygiene > secret](#) and contextualized in [psychology > hygienic psychology](#).

This book tells how to provide them, from abstract theory to concrete practice. Most importantly, it introduces the *hygienic attitude*. Merely knowing it opens the door to super-intensified healing, ie, miracles. When you are ready, you can walk through it. The book includes designs for darkroom components precise to the millimeter so even amateurs can get them right. It inspires you to heal and support others in healing by revealing what healing requires.

terminology

hygiene

1 caring for health by respecting life's self-preserving nature and providing its normal conditions.

2 the biological science of health

3 hygienism; Natural Hygiene

Natural Hygiene

the 185 year-old school of health that champions and exemplifies hygiene

normal

what is biologically appropriate (not merely usual or average)

psyche

the faculty of consciousness, including:

- forms of intelligence and associations
 - moving: sensation / physical / instinctive / gut / reptilian
 - feeling: perception / emotional / intuitive / heart / mammalian
 - thinking: conception / mental / intellectual / brain / rational
- parts (used as both adjectives and nouns)
 - unconscious: coordinates processes fundamental to existence like metabolism, cell division, and blood oxygen levels. It cannot become conscious or directly controlled except, to an insignificant degree, through intense yogic practices, techniques like hypnosis or biofeedback, or psychoactive substances. Synonyms: autonomic, involuntary
 - subconscious: acquired automatized knowledge, which can be made conscious, like walking, emotional associations, cognizing words, and dreaming

- conscious: ordinary waking awareness, as when reading this book or running an errand. Primarily used to direct attention. Synonyms: will or volition
- scales
 - cells
 - organs
 - systems
 - the organism as a whole

psychic

of or relating to the psyche in general (not occult powers).

For example, I refer to psychic illness rather than “mental” illness. Psychology is not just the study of the mind, but the psyche: the entire faculty of human consciousness. This includes emotional and physical aspects not reducible to the mental one.

lifeway

a way of life; everything that happens with people in a given group in the course of living.

I once used the word, culture, for this. Then [John Zerzan](#) explained to me that culture is recent: an aspect of civilization. I wanted a single word which would include all approaches to human existence. Lifeway is a compressed term common in anthropology.

Here is a note on my use of words.

I don't use neologisms. I don't use words in any special sense. Virtually any dictionary will clear up confusion you may have while reading. Read through the senses and the etymology as well.

My usage is sometimes unusual because I take pains to recover the original or essential meanings of words using etymology and historical usage. Popular use and manipulation by elites constantly degrade the true senses of high-level abstractions. Words become corrupt or acquire unfortunate associations. Language is artificial and must be maintained.

I consider this half the job of intellectuals and our audiences alike. The Oxford English Dictionary exemplifies this

effort. Editions of American Heritage Dictionary and Webster's from before 1970 are excellent. Beware of newer lexicology. It is both better and worse than ever due to extreme divergence of philosophical influences in the last 40 years.

requirements

To retreat, one needs three things: knowledge, materials, and support.

- knowledge:
 - of theory and practice of hygienic darkroom retreating
 - of hygienic attitude
 - of oneself
- materials - darkroom - personal belongings - food - time
- support
 - hygiene is the basis on which sick people can help each other without making things worse
 - our problem is collective and is solved with increasing degrees of cooperation as we become more capable of it

Meet these requirements by reading this book, preparing for a retreat, and retreating. Your first retreats are just warm-ups. You will get better at it.

darkroom

A darkroom is a bedroom, suite, or house that is perfectly dark. Sealing a room like this often requires additional ventilation measures. A darkroom can be basic or deluxe. To summarize the practical point of this book, I advocate arranging basic darkness in your bedroom now, deluxe darkness in a remote location later.

Basic darkness means perfectly dark, well-ventilated, reasonably quiet, and comfortable. This provides: darkness for nightly sleep; a place to familiarize yourself with extended darkness at your own pace; and a place for your first short retreats.

Deluxe darkness adds extra features, comforts, and space. A dedicated darkroom is built in a small fully functional house in a quiet location. Like all houses should be but are not, it is perfectly and easily darkened. More in [design](#).

background

nature

Darkness is instinctive. We sleep in it at night and nap in shadows. We use our hands to cover our eyes when overwhelmed. We take longer refuge in caves and shelters when injured. We and many other animals always have.

Absolute darkness is natural. Our natural habitat is tropical forest. At night its floor is pitch black.

traditions

Spiritual traditions have used darkness for millennia. They tend to view it as the ultimate environment for self-discipline and gaining unusual knowledge. Egyptians and Maya have used it in pyramids; Christians in catacombs; Sufis and Taoists in caves; Tibetan Buddhists in cells of monasteries.

Indigenous traditions do likewise: Amazonian shamanism uses darkness in ayahuasca ceremony. Welsh shamans and Navajo, Maya, and Kogi Indians alike build special dark structures, holding darkness in high regard as essential to self-discovery.

Western science has studied sensory destimulation since the 1950s for astronautics, health, and mind-control. Ayurveda, India's ancient healing tradition, uses extended periods of darkness for rejuvenation. By [reports](#), it is nothing less than the fountain of youth.

Unfortunately, the partially or completely active nature of these approaches to darkroom retreating compromises them. This means they depend on an active will, the faculty most in need of rest. Hygiene is passive, allowing the distressed will to finally rest and recover. Hygiene primarily depends on

the autonomic self—omniscient, omnipotent, and infallible—to accomplish the work of healing. This removes structural conflict in the method, promising [limitless](#) results. Hygiene completely secularizes the use of darkness for the specific purpose of healing. There is nothing mystical, disciplined, or complicated about this approach. It is rational, safe, and natural: a reliable miracle.

hygiene

Hygiene is not just cleanliness, as medicine has led us to believe. Hygiene is broad and deep, dealing with all conditions of health. We know the word today because of *Natural Hygiene*, a radical school of natural health originating in America in 1832. It led the global natural health movement of the 19th century. Hygiene respects the self-preserving nature of life. It observes that organisms both maintain and recover health under normal conditions of life. So it studies organic self-preservation and how to provide its conditions.

Normal conditions of life include fresh air, sunlight, natural food, and cleanliness by regular bathing. Hygiene taught the modern world their enormous benefits, significantly raising health standards worldwide. Its motto: “Health through healthful living”. It has only lacked a psychology and an appreciation for trauma as the cause of all illness; this book begins to correct that.

Hygiene identifies disease **as** the process of healing. Disease is the normal organic activity of self-repair, elimination, and re-energizing, but distressed by abnormal conditions. Thus, disease is not an invading entity to be fought. It is a beneficial process to support with healthy conditions and practices and to view as a set of clues to precisely guide this caregiving.

The fundamentals of hygiene help us reconnect with our own common sense about healing. They guide us past incorrect assumptions we likely have about it. Once you have these absolute basics down, you can learn the concrete details of a darkroom retreat and approach it with confidence. Moreover, hygiene provides guidance in all aspects of healthful living.

people

My parents had taught me the importance of eating well through their interest in natural diet. When I was 9 years old, I got sick and realized it was from the junk food I had eaten the day before. Diet became my religion for 30 years.

Natural Hygiene came knocking three times. The first time was in 1989 through my dad's second wife, Jennifer Justice, also a truthseeker. Among her fascinating books I found the ecstatic *Fit for Life* by Harvey and Marilyn Diamond. Again in 1992 through a great friend, Sterling Voss. In the greatest letter anyone ever wrote me, he told me about *Fasting Can Save Your Life* by Herbert Shelton, hygiene's systematizer. Finally, in 2001, through friend and colleague, Frederic Patenaude. He was the editor of *Just Eat An Apple* magazine and author of *The Raw Secrets*. These publications were about the raw vegan diet.

frederic

I worked and was housemates with [Frederic Patenaude](#) a total of three years off and on from 1998 till 2003. We worked at Nature's First Law in California; Tree of Life in Arizona; and at his new office in Quebec. Frederic had started in hygiene not with the works of Herbert Shelton, but the old French hygienic master, Albert Mosseri. Frederic read all his 20+ books and was in contact with him till his death in 2012.

Slowly, I absorbed the essence of Natural Hygiene's radical perspective through Frederic. By this, I mean he got it through my thick skull with his calm, relentless, crystalline arguments. I was challenging but sympathetic, so I kept asking and he kept answering. It took time because I started out quite lost. A mess of alternative dietary ideas floated around my head since childhood. Something finally clicked and I started studying hygiene on my own.

Frederic's dedication and great knowledge made him immovable where I was merely stubborn. I can only hope to return the favor with the current work. It illuminates certain mysteries of diet that frustrated us. Like why some people can stick with eating healthy food and others can't (see [hygiene > capacity](#)). And the greater mystery of metaphysical

suffering that we, like so many others, failed to solve with diet.

finn

I first heard about darkroom retreating in 2004 from my former guru, Purna Steinitz. An American Hindu, he had heard about its use in Ayurveda. He told me, “Apparently, after a few weeks of it, one comes out completely renewed.” I found the idea very strange. A budding hygienist and attracted to spirituality’s Apollonian upper world, I thought we needed light. But like a lot of earthy things Purna said, the idea of renewal in darkness stayed with me.

A year later, I moved to an ecovillage in Oregon. I hit it off with the old village maintenance man. Name of [Finn Po](#). Scrawny guy. Lots of energy. A hippy from birth since his dad was a beatnik. Wizard-level resourcefulness. Full of wry optimistic sayings as well as good-natured quips about people’s hang-ups. Drinks his own pee and lives in a tiny geodesic dome he built out of garbage 20 years ago.

Naturally, Finn also had a darkroom.

“Tired of enlightenment?” he asked. “Try endarkenment.”

I said, “Ohmigod, Finn, really?!”

“It’s the way of the future. Don’t be the last to know.”

“What’s it like?”

Eyes closed, arms wrapped round himself, he said, “It’s a *luxury*.”

“How do you do it?”

“Ah, just git in the room.”

A benevolent Pied Piper and the coolest 60 year-old around, he had inspired all the village’s youth to try a retreat. After listening to him rhapsodize about it all winter, I did, too.

[Wow](#).

But as Finn says, I was just getting started. It would take two more years, the shock of leaving my guru, and another successful retreat for me to grasp the significance of retreating in darkness.

andrew

How did all this begin?

My parents were thinkers and somewhat unconventional. They taught me about philosophy, health, design, and music.

I took all of it more seriously than they expected. They were distant. My intense older brother became as big a force in my life as they. For me, our house was more training camp than home. Other *influences* and *people* helped smooth it out.

I felt awed by life at 2, happy at 3. School started and a part of me died. About halfway through, I read *The Dark Is Rising* series by Susan Cooper. It impressed me. Later came *Do You Really Need Eyeglasses?*, which introduced me to palming. My father's hero, Frank Lloyd Wright, showed me a future without school.

By age 15, I felt morose and alienated. But something from childhood was stirring in me. One day, I was slumped in front of the TV. One of the tiny people living inside it mentioned the importance of loving oneself and being happy. The timing was perfect. My mood was like the Death Star and this advice was Luke Skywalker's photon torpedo.

In a moment, I was overcome by *rapture*: sublime joy in apprehending our perfect, beautiful universe. I had felt it at 3 and 4 years old. Now it was bigger. This perspective and feeling lasted three months. When they faded, so did my previous interests. More than anything, I wanted to understand the cause of joy. I wanted it back.

I finished high school. Barely. I started *living out* of a *backpack*. For 21 years, I independently investigated this *mystery* for 21 years. I experimented with the elements of my legacy: philosophy, health, and design. Toward the end of this period, I did my first darkroom retreats. Soon after, in late 2008, the answer came:

A slight increase of vital energy from adolescence had caused a temporary, partial restoration of my damaged psychic integrity, revealing an enrapturing universe. So a massive increase from profound rest in darkness would cause permanent and complete restoration.

With this breakthrough, my search ended. Testing of my discovery began. I and 28 clients have tried it. Their results echoed my early ones.

Over the course of my 25 retreats of 2-7 days, noticeable restoration of my psychic integrity and function has occurred.

My body's scent has improved. I regained some access to my long-buried sexuality. From one retreat, I woke up feeling like an adult for the first time in 41 years; this feeling has not changed. Alongside my childish panic in the face of challenges, an adult now thinks through them. In retreat, symptoms of fibro-myalgia dissipate. Flexibility returns. I wake up *just knowing* things that have always mystified me and feeling resolved about issues that have frustrated me for decades. Insomnia, exhaustion, and suicidal thoughts and feelings evaporate. Clarity, energy, relaxedness, even joy return for weeks at a time. Basic functioning lasts two months. All these came to me after going years at a time without them.

Besides this supporting evidence, no data contradicting the basic idea has yet emerged. Interest in darkness is growing worldwide. I met an internationally recognized psychology professor with decades of experience as a flotation researcher. She unqualifiedly agrees with my theory and wants to do research with my exact method. Wherever I go, people are as struck as I am by the simple logic of this idea and want to try a retreat.

As Finn says, what else can go right?

application

audience

This book is for:

- those who appreciate good arguments and reasonable tests thereof
- those who suffer in any way—spiritually, mentally, emotionally, physically, socially, ecologically—and need hope and a way out
- those who sense hygiene's greater potential
- self-experimenters and self-explorers who don't necessarily have terrible problems, just yearning, curiosity, wonder, or a wish to find their next steps.
- those who wish to understand why humanity is in such rough shape and what to do about it

Darkroom retreating is for anyone to whom it makes sense and who feels moved to do it, whether to heal from acute illness or just see what it's like. Much if not all physical illness is psychosomatic and therefore amenable to self-healing in darkness.

However, darkness is no escape. Sometimes illness needs to be addressed in other obvious ways first. But just knowing about darkroom retreating can be greatly encouraging in doing so. It helps puts things in perspective. And acquaintance with hygienic principles is invaluable to healing from any illness.

how to use this book

Above all, this book presents an idea for consideration. For now, doing a retreat is not at issue. To do something like this, you must know how and you must want to. To want to, you must believe in it. To believe, you must know enough about it to find it true. So first, learn the idea. Natural motivation comes from rational belief. Invest your time in knowledge by reading every word of this book, cover to cover. As Finn says, "Nothing costs more than what you don't pay for."

Once you are motivated, use the book as a manual for making basic darkness for yourself at your own place. Download the companion darkroom retreat [zip file](#) to get all the plans for components. Or find a retreat center. See [prepare](#) for resources.

Help from others may or may not come. You are the one you have been waiting for. The need for self-reliance applies to darkness more than anything else I've ever gotten involved with. It has been hard for me to recover enough of a self to rely on, to ferret out remnants of it I didn't know I had. But bit by bit, "a little here, a little there", the task is being accomplished.

The full application of the idea of hygienic darkroom retreating consists of doing retreats of increasing length alternated with periods of making the radical changes in lifeway one becomes capable of in darkness. This includes studying and applying the rest of hygiene. Continue until your psychic integrity and physical health are completely restored. *Live.*

contents

Chapters are mostly practical with a dose of theory to start with.

1. hygiene: the general theory underlying the restful use of darkness
2. darkroom retreat: the inner workings of profound rest
3. psychology: the further radicalization of hygiene
4. format: ways to use darkness in retreats and daily life
5. protocol: what to do in a retreat
6. prepare: orientation, menu, packing list
7. design: darkroom specifications
8. make: general descriptions, plans, and instructions for building darkrooms
9. air: ventilating, silencing, and heating a darkroom
10. darkness: refined darkening techniques
11. water: simple kitchens and bathrooms for darkrooms

Then:

- [faq](#): frequently asked questions
- [bibliography and influences](#)
- [acknowledgments, services, license, bio](#)

Note: underlined words in paper book are clickable links in the [e-book](#) and online. When *italicized*, they are crosslinks to other chapters and sections of the book. Usually, the *link text* indicates the link target, like this:

chapter > section > sub-section.

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~/~

Now on to how darkness completes the life-restoring perspective of hygiene.

part 1: hygienic

1 - hygiene

Hygiene is a complete system of health and healing based on the self-preserving nature of life and an appreciation for its normal conditions. More than mere cleanliness, hygiene is a 185 year-old, globally embedded health care system. We hardly discuss it because it's just how things are done. Almost unknown in its fullness, its details strike newcomers as oddly familiar.

Hygiene provides a comprehensive context for the restful use of darkness in support of the self-healing psyche. Hygiene enables us to understand what darkness is and how to relate to it for the purpose of health.

Which is the point. We are organisms, so our purpose is to live. To live fully, we need health.

What is health like according to hygiene?

“Health does not consist merely of the absence of symptoms of illness. It is a state of positive well-being that is evidenced by a constant state of euphoria. It is rarely, if ever, experienced by humans today.”

-Herbert Shelton, father of modern hygiene¹

Euphoria is exactly the sign of long-lost function that my adolescent rapture hinted at. Once tasted, nothing else will do. The thing is to come by it on purpose, not just by chance. What conditions would make it possible? Identifying and providing conditions is hygiene's forte. It accomplishes this by making ordinary observations of life in nature along certain lines.

So we will learn these lines—these principles—in this chapter, which relates the theory of hygiene. Chapter 2, **darkroom retreat**, relates its application. In chapter 3, we head into the uncharted territory of hygienic **psychology**.

¹TC Fry, [*Life Science Health System*](#), This is actually Fry's 'elegant paraphrase of original quote by Herbert Shelton in [*Natural Hygiene: Man's Pristine Way of Life*](#)

I aim to do much in this book: reform hygiene's laws, its pathology, and add a psychology. It is renewal through radicalization and completion. If the 19th century was hygiene version 1.0, and Shelton's systematization of that vast body of work into modern hygiene was hygiene 2.0, then this is the beginning of hygiene 3.0. This is when hygiene becomes complete and instigates another global mass health movement.

essence

Hygiene has three senses in its definition:

1. the science of health; a branch of biology.
2. conditions and practices conducive to the preservation of health
3. cleanliness

In common usage, the third sense strangely dominates. Hygiene is reduced to vigilant cleanliness against germs and the use of safety equipment to protect against a hostile environment. Why? We will get to that. Meanwhile, the dictionary shows that hygiene includes all healthy conditions and practices. It is fearless and relaxed. It respects life's resilience.

Natural Hygiene makes all this explicit. It identifies "preservation" with life's defining characteristic of self-preservation. And it identifies "conditions and practices conducive" to health with the normal conditions of life. Thus it recognizes the self-preserving organism and seeks to provide it with normal conditions of life in both sickness and health. This originates in hygiene's observation of ubiquitous health in nature, where organisms also get injured and sick, yet only normal conditions of life exist. For humans, these conditions and practices, both physiological and social, include:

- air, warmth, water, food, light & darkness, shelter
- rest, work, poise, exercise, cleanliness
- family & friends, camaraderie, affection, sex, love
- freedom, peace, prosperity, habitat

The extent and organization of this list are somewhat arbitrary. It simply helps ground our discussion in biology, including psycho- and sociobiology.

rest

This book mainly deals with the condition of rest, which is half of life. In our action-obsessed lifeway, we disdain and resist it, viewing it as a waste of time. But not only is rest an end in itself, another equal aspect of living, but nothing else is possible without it, neither action nor healing. If we wish to be healthy, we simply must correct ourselves in this matter.

Rest is of two kinds: ordinary and profound.

Ordinary rest includes nightly sleep, naps, and relaxation, alternated with daily activity in light. It is for maintenance of health.

Profound rest means extended retreat lasting days, weeks, even months. It is for recovery from major trauma and sickness, including aging. It is gained in four ways (in ascending order of intensity):

- silence
- solitude
- fasting
- darkness

The benefits of profound rest accumulate day by day. If interrupted, some healing processes must start over. One good night's sleep, or several in a row, are simply not enough to recover from what really ails us. We must bring retreats into our lives in a serious way to get the profound rest needed for healing.

history

Hygiene originated in America when it was still the only marginally free country in the world. It was a generation after the Revolution, in the Age of Enlightenment. Hygiene became

a mass movement in 1832 with the lectures of Sylvester Graham, physiologist and namesake of Graham (whole) flour. Two doctors, Isaac Jennings and Russell Trall, abandoned drugging, further developed hygienic theory and practice, and spread hygiene widely with publications, teaching, and organization.

Mary Gove helped bring hygiene to women of the 19th century, whose increasing independence it matched. Florence Nightingale transmitted its rudiments internationally through nursing (before medicine co-opted it). John Tilden buoyed and innovated in hygiene after the untimely death of Dr Trall. Herbert Shelton revived and systematized it for the 20th century. He formalized it as “Natural Hygiene” to strike the imagination and distinguish it from narrow medical usage.

Hygiene led the natural health movement of the 19th century which resulted in the famous improvement to public health then. Medicine, funded through Rockefeller’s pharmaceutical interests, opposed hygiene while taking credit for this. Medicine made war on hygiene’s exponents, institutions, and full teachings through propaganda, lobbying, and prosecution, nearly destroying hygiene. Medicine covered its tracks by using hygiene’s mistaken emphasis on toxemia to reduce hygiene to the idea of cleanliness. Thus few know the real story.

Nonetheless, hygiene remains the most effective and influential approach to health and healing in world history. It now benefits nearly every person on the planet several times a day with the understanding that fresh air, pure water, regular bathing and exercise, and nutritious food are matters of course in a healthy life. With the advent of a hygienic psychology and the astounding self-healing power of the organism in darkness, hygiene’s influence will increase exponentially. So I am leaving behind the special name, Natural Hygiene, to reclaim the ordinary word, hygiene, for our tradition.

laws of life

Shelton describes hygiene as “the employment of materials, agents, and influences that have a normal relationship to life, in the preservation and restoration of health according to well-

defined laws and demonstrated principles of nature.”² These laws of life are the absolute heart of hygiene and thus a great key to understanding it.

I have grouped laws by subject and importance. Four primary laws form the context for the rest. I formulated two of them, *Coordination* and *Capacity*. I suppose that has not happened since Shelton or earlier.

I substantially edited the original list. See it in [appendix: laws of life](#), along with my criticisms of it. Titles in parentheses below refer to it.

Here are all the laws of life, the strongest dose of hygienism you can get.

primary

- **Force:** A force inherent in an organism, called life force, sustains its structure and the instinct of self-preservation in its every cell, organ, and system. (*Life's Great Law*)
- **Order:** Life's defining characteristics are its self-preserving nature and conditional existence. The constant practical aim of self-preservation is health, life's natural state. Self-preserving means it is completely self-generating, self-maintaining (self-ordering, directing, and defending), and self-healing (self-repairing, cleaning, and energizing). From the outside, it needs only its original conditions: air, warmth, water, light and darkness, food, company, etc.
- **Coordination:** The instinct of self-preservation coordinates living processes. Instinct is a basic form of consciousness. The faculty of consciousness is the psyche. Thus the psyche is the coordinating system of animals. It works mostly unconsciously (involuntarily). The voluntary conscious mostly serves to maintain conditions.
- **Capacity:** Capacity determines function. Capacity is the degree of an organism's structural integrity. Function is its physical, emotional, and mental ability to live. Capacity increases with rest and decreases with trauma. How one is determines what one can do—and benefit from.

²Herbert Shelton, [Science and Fine Art of Natural Hygiene](#), back cover

secondary

process

- **Action:** Whenever action occurs in an organism in response to external influences, the action must be ascribed to the living thing. It has the power of action, not the external thing, whose main characteristic is inertia. Much related to the laws of *Power* and *Capacity*.
- **Dual Effect:** Every action and substance has a primary effect followed by an opposite and equal secondary effect.
- **Vital Accommodation:** The organism accommodates itself to external influences it cannot use, control, or destroy. It distributes the force of acute harm, lowering overall health.
- **Proportion:** The success of each organism is directly proportional to the amount of its life force and inversely proportional to the degree of its activity. (*Life's Great Law.*)

reserves

- **Economy:** An organism under favorable conditions stores excess vital energy and materials above the current expenditures as a "reserve fund" to be employed in time of special need. (*Special Economy*)
- **Compensation:** When activity has expended the substance and energy of the body, rest is induced in order to replenish them.
- **Development:** The development of an organism is directly proportional to the amount of vital forces and nutritive materials which are available to it, and limited by the factor in shortest supply. (integrates the law of *the Minimum*)

energy

- **Power:** The power used in any vital or medicinal action is vital power, that is, power from within and not from without.

- **Distribution:** Distribution of power is proportionate to the importance and needs of the various organs and tissues of the body.
- **Limitation:** When the expenditure of vital power has advanced so far that a fatal exhaustion is imminent, a check is put upon the unnecessary expenditure of power; the organism rebels against the further use of an accustomed stimulant.

substance

- **Utilization:** The normal materials of life are all that an organism is ever capable of constructively utilizing, whether it is well or sick. No substance or process that is not a normal factor in physiology can be of any value in the structure of an organism. That which is unusable in a state of health, is equally unusable in a state of illness.
- **Selection:** When the quality of nutriment being received by an organism is higher than that of the present living tissue, the organism will discard lower-grade cells to make room for appropriating the superior materials into new and healthy tissue. (*Quality Selection*)
- **Elimination:** All injurious substances which, by any means, gain admittance into an organism are counteracted, neutralized, and eliminated as fully as bodily nerve energy supply allows and by such means and through such channels as will produce the least amount of harm to living structure. (*Selective Elimination*)
- **Conservation:** Whenever nutritive abstinence occurs, an organism's reserves are conserved and economized. Living structures are autolyzed in the inverse order of their usefulness, while toxic substances are eliminated. This law refers to fasting; it applies to starvation as well.

comments

The perfect sense of these laws exposes common myths of health. The laws affirm our deep sense of life's correctness. They intrigue and inspire. They give grounds for hope. Consider yourself initiated into hygiene.

Elder hygienists have written much about these laws, and I refer you to their work, beginning with [Shelton](#). I will make a few comments here.

As we can see, hygiene is philosophical. It mirrors the axiomatic concepts found in realist metaphysics. Hygiene is based on the being, identity, consciousness, and causality of life. Life is. Life is what it is: alive (self-preserving). Human life is self-aware and volitional: Life knows and chooses. Life acts in accordance with its nature.

Life is assertive, intelligent, and active. It is not a helpless, stupid reaction. This regards the laws of *Force* and *Coordination*. Self-preserving means self-generating, self-maintaining, and self-healing. These obtain in every aspect of life and at every scale, from the cells to the organism as a whole. This is part of the *Law of Order*. It preserves itself as well as it can stand to, and this capacity varies. This is the *Law of Capacity* (more about this law later).

Other laws follow. The *Law of Action* states that only the organism performs vital action, including healing. So only the organism can heal the organism. Again, this is true at every scale. Even a cell must heal itself; another cannot. The *Law of Power* states that energy used to perform action resides only in the organism, not anything external to it. (This law might have treated the ability as well as the energy to act. The *Law of Capacity* now addresses ability along with other elements.)

Thus, no drug, herb, or food heals; neither any condition or practice; nor treatment, person, or device. Thus there are no cures. Attempting to heal the body from the outside further damages it or drains its power to heal itself. Whatever benefit might appear in the short term, such attempts mask the body's illness and delay its healing. This is an example of the intriguing *Law of Dual Effect*.

The other laws compliment and develop on these.

NOTE: In an earlier edition of this book, I wrote:

Sixteen laws is too great a number for the mind to apprehend at once. So over time, integrating laws will emerge or some laws will be recognized as primary to others. Three to five "Great Laws", with the others as corollaries or sub-laws, will bring

hygiene within reach of everyone's understanding.

In the above list, this process has commenced.

examples

Whether well or ill, one's conscious (volitional) role is to discover and provide the normal conditions of life in the proper proportion. The autonomic processes of the omniscient, omnipotent, infallible organism handle the rest. Hygiene systematically describes how this happens with these logically interrelated laws. All are derived from simple observations everyone can make. It is science for everyone, ripe for self-experimentation.

A drug, for example, is a poison by definition. This is why drugs are legally controlled. An organism does not relate with poison but rapidly neutralizes and expels it. It gets hurt in the process and we call it side effects. By contrast, an organism assimilates food into its own structure without harm or compromise.

Fasting when ill is an instinctive extension of time between meals. It is observable in many other animals and has long been a part of Natural Hygiene. In this pause in eating, the body can rest from most metabolic processes. It repairs tissues, eliminates deeply stored toxins and waste, and replenishes itself with unabsorbed nutrients and energy to the farthest reaches of every cell. For example, anemia, supposedly caused by iron deficiency, disappears. Blood iron levels normalize during a fast. We might say a similar case is women who cannot conceive become pregnant after fasting. The capacity either to absorb iron or conceive is restored. Just as fasting enables metabolic rest, darkroom retreating enables profound psychic rest.

One of hygiene's most striking insights regards disease. In disease, the symptoms we observe do not afflict the body. They are precisely how the body is healing itself and signaling for care. Disease is not hostile. It does not invade from without, as in the germ theory. It is the body itself in action. Pain signifies damaged tissues and their repair. Infection and inflammation after first aid signify neutralization and elimination of internal

toxins. Unpleasant discharges—vomiting, diarrhea, extra sweating, rashes, bad breath, dark urine—are the elimination of gross accumulated toxins and waste through every organ. Fatigue indicates energy has been diverted to all this critical work.

These healthy processes must not be stopped but supported and waited out. Drugs or treatment require the body to neutralize or recover from them. Creating “another disease” does not aid healing but delays it. It adds to one’s damage, toxic load, and exhaustion. It guarantees worse symptoms later when one has less time and energy to deal with them. With medicine, one goes from a cough to a cold to bronchitis to pneumonia to death. We can trace similar tracks in the pathologies of those with cancer, diabetes, stroke, digestive disorders, depression, AIDS, etc. More about pathology in [psychology > pathology](#)

Loss of appetite conserves energy from the immense effort of digestion. Pain, nausea, weakness, and exhaustion immobilize the organism, enabling all vital force to be used for healing. Every one of these is a biological virtue. None should be feared or suppressed. All should be viewed as vital victories to be trusted, observed, and supported, not fought. All occur in the most efficient possible way for the purpose of restoring health. Disease is our friend.

In the relationship between food and nerve energy lies another example of vital relations. Food does not actually give energy to the body directly. Food initially takes nerve, chemical, and muscular energy to eat and digest. Otherwise, we could just eat to restore our vigor, even when sleepy. Food provides sugar, which refuels everything from large muscle movement to thinking to cell operation. Some of this refueling can occur within seconds of eating fruit, the most easily digested food. But even this takes material and energetic reserves to accomplish. The body only transforms sugar into reserve electrical potential of the nerves during sleep. It only repairs tissue eliminates toxins from it completely while they are unused. Eventually we run out of the power necessary to utilize food and must rest.

Again we see that no external force has the power to act for life, only life itself. Life is the doer. Hygiene helps us redirect

to the *autonomic self* the vast attention paid in our lifeway to the volitional self. Volition plays a critical yet small part in the whole process of life. Hygiene puts these elements in their proper places. Hygiene can now offer darkness as a means of caring for the autonomic self in its primary system, the psyche.

The deep self will not solve all one's problems in darkroom retreat. But it will have the chance to recover lost capacity. Recapacitated, one can then make the radical changes in lifeway necessary to handle one's remaining problems. See [protocol > post-retreat](#).

capacity

I have mentioned capacity a few times. It is the idea that integrates this whole book. It is so important, I have formulated a new hygienic law about it. I'll restate it then explain.

Law of Capacity: Capacity, the degree of an organism's structural integrity, determines function, its physical, emotional, and mental ability to live. Capacity increases with rest and decreases with trauma. How one is determines what one can do—and *benefit from*.

This is the philosophical law of causality applied to health: a thing acts in accordance with its nature.

Everything has a structure, whether it is an idea, a building, a body, a galaxy. In organisms, structure is the psychophysical framework of life, holding it up, keeping it together. Like life, capacity is a union of being and consciousness. It is the vital pattern of an organism. It exists at every scale like a fractal or hologram. It is life force in a particular form. Yet it cannot be reduced to consciousness, the nervous system, the skeleton or myofascia, or DNA. Any of these might serve to represent its status.

Capacity is synonymous with constitution, endowment, type, inheritance, stock, and potential. Like these, capacity is conventionally assumed to be static; in fact, it is dynamic, changing constantly. Capacity is experienced as a sense of ease in doing something. It shows up in colloquialisms:

"Do you have it in you? Do you have what it takes? The wherewithal? The right stuff? The touch? The X factor?"

Or, "He's a natural. He was born to do it. It's in the blood."

Two influences affect capacity significantly: profound rest (positively) and major trauma (negatively). Profound rest is both physical and psychical. Fasting provides primarily physical rest; darkroom retreating, primarily psychic rest. These can be used together or separately depending on capacity.

Contrary to common opinion, effort, will, and discipline affect capacity insignificantly. Lifestyle, the daily conditions one arranges for himself, merely help one realize one's capacity. Whatever gains one makes by them beyond one's capacity are minor, however impressive they may seem, and they are easily lost.

Likewise, heroic discipline or super-effort (doing something twice as much or twice as fast) have the notable but still insignificant effect of turning people into weird assholes. Common examples include religiosity about god, politics, work, and food. Fortunately, this condition abates with enough rest.

This law has a strange implication. The benefit one derives from anything cannot exceed one's capacity for it. When capacity is damaged (as with virtually all of us now), the unconscious self prevents further damage from the increased energy of normal levels of pleasure, joy, fulfillment, and success running through damaged circuits. We often call the results of this life-saving mechanism "self-sabotage" or "bad habits". But we can best understand it as a symptom of disease. Thus, as hygienists, we seek to understand and support it, not fight it like the moralists. Which hygienists have unfortunately been when up against a person's habits.

Same goes for more obvious means of self-protection like resistance and stubbornness.

Imagine a damaged electrical device. Simply running a regular amount of power through it won't repair it, and may well cause further damage to circuitry. It is best to immediately stop it, turn it off, unplug it, and bring it to a mechanic for repair.

Likewise, one's capacity for ordinary rest determines how much of it one will enjoy. A good night's sleep begins a deep healing process that may take days or weeks to complete. A good night's sleep entails stillness and leads to re-energization and clarity. These tend to irritate damaged capacity. It's like

rebreaking a badly set bone. The organism accepts it if the new energy will fuel complete repair. But if light and activity will interrupt the process in the morning, then, from the comprehensive perspective of capacity, it's best to not start at all.

If, due to a lack of time, safety, or understanding we have not met all the conditions of healing, then unconsciously, we will be prevented from sleeping until we can *really* sleep. Insomnia typically results. As with the rest of functioning, only in profound rest does the organism restore its capacity for ordinary rest.

This analysis applies to everything we try that repeatedly fails and frustrates us.

Like staying on a good diet. One starts eating well. Congestion clears. Sleep becomes easy and delicious. Clarity, motivation, and joy return. Eventually, the energy level reaches a fever pitch and something snaps. With the indifference of an executioner, one inhales three pieces of stale cake that, just a few days before, was obviously horrifying.

The unbearable level of energy in real emotion has the same effect on many of us. Or in meeting a magnificent personality. Or in getting a once-in-a-lifetime opportunity. Choke artistry springs from nowhere. "Boy, it's time for an all-night movie marathon! Where's the ice cream?" To prevent further damage to capacity, the autonomic self does whatever it takes to curb one's enthusiasm.

Thus, we can see how moralizing about choices, habits, commitment, etc, is ineffective because it is irrelevant. We are not creatures of habit. We are creatures of capacity. In any given moment, we do absolutely the best we possibly can. Whether willed or automatic, every thought, every feeling, every action is an utmost expression of one's capacity. The instant capacity rises or falls, so does function. Life cannot do otherwise.

Genuine benefits gained by normal efforts simply realize one's capacity. That's why they feel fun. When emergencies or unusual opportunities call for extra effort, the body supplies adrenaline for it. But we err in continuing to exert extra effort over a prolonged time span for any purpose, let alone the mind-boggling task of restoring original human capacity. The will fails to achieve it. Only the involuntary power that gave us

life in the first place can. This power cannot be manipulated, only provided for.

Like the *Law of Force*, the *Law of Capacity* integrates several existing hygienic Laws of Life. It casts them in a different light. It contains elements of the laws of *Compensation*, *Distribution*, *Development*, and others. It has many implications. If, like me, it takes over your perspective, you may realize some of your usual efforts are futile. You may feel your attention freed to focus on what you can actually accomplish.

This idea of capacity has its roots in the Ayn Rand's character studies in *Atlas Shrugged* and in esoteric spiritual teaching such as Gurdjieff's. I have simply resituated it in hygiene. Here it is in harmony with nature, universally accessible, and more useful by orders of magnitude.

false capacity

The world equips us, its creatures, with everything we need to live fully. This seems to be about 50 times more than we need to just survive. Which is good because we have lost so much of it. But even this huge margin is proving insufficient. In our permanent state of emergency and distress, a single major crisis can overwhelm most of us.

We compensate for damaged normal capacity by building *false capacity*. By constant effort, we attain substance and momentum as personalities, even some personal power. We gain knowledge, strength, skills, character. We beat competitors, achieve independence, win respect. We gain a modicum of stability, reserves, resilience. It's hard work, but if you are a good person, you do it. If you are lazy and don't struggle, you only get what you deserve. (Sound familiar?)

False capacity is not only hard to build, but hard to maintain. It is inefficient and gives partial results. So as the organism restores normal capacity in darkness, it removes false capacity as soon as possible, similar to the *Law of Selectivity*.

False capacity exists near the surface of the personality, where we use it. Normal capacity gets restored from the bottom up. This occurs rapidly in darkness, slowly in regular living. So we retreat long enough for it to reach the surface before too much false capacity is lost. Then it can replace false

capacity in practical ways.

With false capacity go the survival tricks it sustained. The ego is concerned with survival. It constricts its attention and rules to a specific disaster. The organism is concerned with overall function and efficiency. False capacity is specialized. Normal capacity is generalized and adapts to a variety of situations. It is natural, but takes some getting used to after a lifetime of faking it.

This idea contradicts our perversely moralized perspective. How shocking to discover that years of hard work on oneself accomplish little compared to doing nearly nothing for a few weeks in darkness; that our efforts make us fake; that our pride in them keeps us stuck.

This is the hardest lesson I have learned about darkness. With every new breakthrough I had in darkness, I would experience a corresponding loss of function. It confused me for years and began to scare me. Abilities I counted upon, that I always had, suddenly disappeared. Retreating seemed like it was backfiring.

But, no. Doing far too many 3- and 4-day retreats caused the problem of *overloss* of false capacity. False capacity breaks down too much before the organism can restore normal capacity to the point of usefulness. The solution is simple: do no more than one or two 4-day retreats. Advance quickly to 8-day and medium-length retreats. I discuss this more in [format](#).

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This is the general theory of hygiene 3.0. Our main subject, the darkroom retreat, instigated the revision. Now, in context, we can see our subject more precisely.

2 - darkroom retreat

Any theory applies to more specific ideas and finally action. Now we will examine the **elements** of hygienic darkroom retreating. **Distinctions** between hygiene and other approaches further aid understanding. Some **mechanics** follow.

elements

Here I make natural observations of the psyche and darkness; show how hygiene applies to them; and reveal the secret of exactly why hygienic darkroom retreating works.

psyche

Shelton reviews hygienic ideas about the psyche: “Graham pointed out that the ‘vital instincts’ behaved as though directed by intelligence. Tilden held that physiology is ‘organized psychology.’”³ And here is Shelton’s own unsentimental view: “The conscious functions of the body serve primarily to protect and provide the needs of the subconscious functions.”⁴ This means consciousness is not an end in itself. It serves a biological function. Hygiene views consciousness as primarily autonomic (unconscious), secondarily volitional (conscious).

Furthermore, the psyche is the *primary* system in the human organism. “Consciousness—for those living organisms which possess it—is the basic means of survival,” as philosopher, Ayn Rand, put it in her *meta-ethics*⁵. The psyche coordinates all other systems. It does so consciously, subconsciously, and unconsciously. The psyche is diffuse throughout the organism, functioning at every scale, autonomically monitoring and harmonizing every one of quintillionss (10,000,000,000,000,000) of organic

³Herbert Shelton, *Science and Fine Art of Natural Hygiene*, p 35

⁴Ibid, p 139

⁵Ayn Rand, *The Virtue of Selfishness*, p18, “The Objectivist Ethics”

processes per second (trillions of cells X millions of processes per cell). Whatever affects the psyche for good or ill greatly affects the rest of the organism likewise.

That's a lot of work. Like any other organic system, the psyche needs a period of rest and recovery. Since its sensory apparatus is reflexive—the skin automatically feels what makes contact with it, the nose smells, the eyes see—sensory destimulation is necessary for psychic rest. Think back to the times you got your best sleep. Besides feeling at ease, your shelter was probably especially dark, well-ventilated, and quiet. While the exact circumstances at the time cannot be replicated, these critical elements can be.

darkness

Human beings are diurnal creatures, naturally awake in daytime and asleep at night. This physiological cycle is critical to psychic function. Modern life replaces the natural extremes of sun and stars with the relentless grey of artificial light and sunglasses. It replaces natural sleeping patterns with graveyard shifts and afterparties. This greyness, along with a hundred other civilized offences, has pushed psychic illness to epidemic proportions. Simply put, our lifeway is brutal, damaging and dysfunctional.

Modern distress (sensory overload, overwork, loneliness, malnourishment, etc) requires hundreds of millions of people to consume psychoactive drugs just to function. Most dislike this dependency, which causes further distress. Caught in a vicious circle, they wonder helplessly if things will ever change.

While many factors contribute to distress, hygienic dark-room retreating uniquely provides an *opening*: a simple way to begin reversing all of them at once. First, it harmlessly brings them to a halt. Second, it provides the being a chance to recover from them naturally, that is, by itself. Autonomically. No drugs, no therapy, no experts. *Self-healing unleashed*.

Thus, contrary to fairy tales, religion, and light bulb advertisements, darkness is a good thing. Darkness, like light, is a natural condition of life. We need nature's full provision of it—

10 hours a day—in order to rest properly.

In crisis, we need an extended period of darkness to rest and recover. Darkroom retreating is to the psyche what fasting is to the body:

- relief from sensory processing
- time to fully recover from injury, exhaustion, and toxemia
- overdue recognition of exactly which part of whom is performing the recovery

Instinct in extreme circumstances gives us a graphic clue to the basic need for darkness: when psychically overwhelmed, a person crouches down and covers her eyes, taking cover in solitude if possible. Depressed, hysterical, or shocked from violence, her whole being cries out, “Gimme shelter!”.

A darkroom is that shelter. Long sought yet right before our eyes, we couldn’t see darkness. It was obscured by itself, by our Apollonian obsession with light, thought and action, and by medieval fear. Now we can finally sink into darkness, unconsciousness, and rest, and recover our lost selves.

hygiene revisited

Having found shelter—a context—for darkness itself in hygiene, we can better understand why darkroom retreating works.

First, let’s retrace our steps a moment and analyze Webster’s sly definition of hygiene: *conditions and practices conducive to the preservation of health.*

- hygiene derives from Hygieia, the Greek goddess of health.
- “conditions and practices” refer to the normal conditions of life, the environmental and instinctive factors nature has always provided that make life, including healing, possible
- Conducive means:
 - making it easy, possible, or likely for something to happen or exist
 - tending to promote or assist

- contributive to

- Preservation refers to an organism's preservation of itself
- Health refers to that of an organism

Thus, normal conditions support the organism in preserving its own health. Hygiene means self-preservation through providing oneself the normal conditions of life. This whole meaning hides within the dictionary's definition. Natural Hygiene, as the standard bearer of the whole tradition of hygiene, makes it explicit.

Now we can elaborate on self-preservation. It:

- is the defining characteristic of all organisms
- occurs at every scale: cells, organs, systems, and the organism as a whole
- is comprised of self-generation, self-maintenance, and self-healing

Self-healing:

- requires more work, time, and energy than self-maintenance, but less than self-generation
- includes:
 - repair of damage
 - elimination of toxins, exogenous and endogenous
 - re-energization of tissue

Consciously, we provide the conditions of life. Unconsciously, we use them in life's staggering number and variety of processes of self-preservation.

The unconscious is:

- the hidden part of consciousness. It is pervasive in the being, an integral aspect of every cell, organ, system, and the organism as a whole
- the biggest part of consciousness, coordinating millions of actions per second in each one of our trillions of cells
- omniscient, omnipotent, and infallible: all-knowing, all-powerful, and incapable of error
- just waiting for a chance to fix what is broken

Hygienic darkroom retreating is that chance.

secret

At last we are prepared to understand the secret of why hygienic darkroom retreating works. There are three reasons: physiology, attitude, and environment

1. Physiology

1. Circadian rhythms: Our 24-hour waking-sleep cycle is governed by the circadian system. This system is controlled by a tiny region of the brain. It is called the

[suprachiasmatic nucleus](#). It has an internal 24-hour clock and resets itself with light. It rests atop the optic chiasm, the intersection of the optic nerves coming from the backs of the eyes. It gets a direct signal of the presence or absence light. This is prior to the imagery in the signal decoded by the visual cortex of the brain.

The suprachiasmatic nucleus, for example, instructs the pineal gland to secrete a famous hormone, [melatonin](#) into the bloodstream. This hormone causes us to sleep, dream, and lose appetite. In absolute extended darkness, the pineal gland *floods* the body with melatonin, intensifying these restful processes. Melatonin is but one of many hormones, nervous signals, and processes that facilitate the deep rest and sleep necessary to recover from and assimilate the benefits of waking life.

2. Destimulation

- Sensory processing: we conserve the significant effort and energy of sensory processing. Sight requires twice as much processing as all other senses combined. Darkness eliminates vision and minimizes other sensation.
- Calm: without the abstract food of visual data, the abstract mind slows down
 - fewer thoughts occur
 - thinking becomes harder
 - thinking becomes *less interesting* (!)
 - directing attention restfully becomes *much* easier. (See [protocol > attention](#))

- Balance: the remaining sensations feed the feeling and moving centers of intelligence. Outwardly undistracted, the internal sense of touch sharpens in its [many aspects](#). Intuition and instinct, aspects of consciousness suppressed in civilization, reactivate. They balance the psychic workload, making it more efficient, saving energy and internal activity.
3. Inactivity - Resting causes rapid recovery of homeostasis, the foundation of healing
 - It induces the stillness required for repair
 - It enables conservation of the extra vital energy the process of healing consumes.
 2. Attitude: hygiene's passive attitude toward healing aligns the conscious and unconscious parts of the self. It enables the internal peace and cooperation necessary for super-intensified healing (miracles) to occur. At first, only knowledge of this attitude is necessary. Belief comes later.

The hygienic attitude is the essential difference between hygienic retreats and others. This attitude rests on knowledge of physiology, the complimentary roles of the conscious and unconscious, and hygiene itself. The attitude leads to great care in providing a proper environment.

3. Environment: a retreat provides all external conditions of profound rest:
 - safety, solitude, support, time
 - silence, darkness, warmth, electromagnetic neutrality
 - fresh air, pure water, natural food, exercise

In terms of experiencing profound rest and miraculous healing, a hygienic darkroom retreat is the perfect storm.

distinctions

We are beginning to see how not all darkroom retreats are alike. For eons all over the world, people of every lifeway and

spiritual and cultural tradition have retreated in darkness. But the differences in approach outlined above have profound effects. I will explain these differences and their importance in using darkness on your own.

attitude

Civilization has taught us well: in various ways, we have all come to believe that somehow, someday, we would finally *do* something about our quandary. Our culture worships the mind, so we assume this means willed, mental effort. We feel pumped up by the prospect of doing something consciously and directly. We eagerly sign up for workshops, submit to treatments, undertake disciplines, and experiment with exotic psychoactive substances. Meanwhile, the all-knowing automatic self rots in an unemployment line.

No pleasant way exists to put it: this is pure egomania. It is an act. It is a pretense of enthusiasm and competence. It covers up painful psychic damage, self-loss, helplessness, and even the urge to total selflessness by suicide. Under regular circumstances, we won't drop this act. We cannot. It would be too painful and frightening. We need an exceedingly safe place. Nature provides it in darkness.

Even if we were not utterly helpless in our post-traumatic amnesia and denial, hygiene shows that we cannot willfully heal injury anyway. This may seem discouraging. But it is fruitful, for it can elicit a strong enough response from conscience to halt our futile efforts, notice the all-powerful self-healing organism, and finally provide for it.

Pathologically disidentified from life, we are powerless. We stumble infirmly yet presume to control the grand order of life rather than serve it. It is time to face facts. We are not going to handle our quandary. As we imagine ourselves to be—just the conscious, volitional part of ourselves—we are not going to get it done or have anything to do with its getting done. We are not going to figure it out. We are fit to be tied.

The best we can do is fully admit our helplessness and surrender to the only force that could ever untie the knot. It is the Gordian Knot. But the knot must be untied, the precious rope put to use again. Alexander did not properly handle it by

cutting it open with his sword, and neither will we with our scheming, effort, or skill. Only the silent, slow tendrils of the organism's vast autonomic intelligence can ever untie such a tangle. But it needs our recognition, our commission to do the job. We must consciously support the unconscious. Integrity is the end, so integrity must be the means as well.

Hygiene's passive emphasis on rest and healing is very important because it defines the appropriate *attitude* toward retreating. I learned in fasting that how one approaches a retreat has a great effect on what happens in it. The mind becomes extremely powerful when it is resting and purifying. If one's attitude is really to passively support the omnipotent healing forces of the organism in doing everything, the effect of this internal unity will be much greater than if one has the conflicted doer-attitude of a practitioner.

I know no one who has explicitly gone into darkness with the hygienic perspective, with the sole purpose of simply providing the conditions of life to the self-healing organism. Since the organism is the only thing that heals the organism, this is far more powerful than any other approach can be. While stories of miraculous healing in darkness continue to find their way to me, I suspect they will pale in comparison to what the hygienic perspective will make possible. Attitude affects recovery.

The main effort involved is supportive: to maintain the conditions of healing. This ain't a tall order. Stay in the darkroom. Lie down as much as possible. Eat. Exercise. Bathe. Eliminate. Meditate if so moved. Lie back down. Think when necessary. Stare at the backs of your eyelids, feel your breath and pulse, and let sleep come.

It will anyway. Darkness ensures it. Anyone with a blood-stream flooded with melatonin is induced to sleep. And sleep deeply. In my retreats, I have often felt positively knocked out. Dreams are fewer or more vivid. In 48 hours it is possible to catch up on all the sleep one has ever lost. (See the first of my [*four darkness experiences*](#)). I am not speaking metaphorically. It is impossible to believe until it happens.

I find even the least bit of light too distracting, too stimulating. I am on guard. I can't relax. I can't stay with what I'm feeling. I can't "just be with it". I can't feel into myself.

I've tried and failed my whole life. I have found solace only in darkness.

To me, it feels like falling through a trapdoor. At the end of my second successful retreat, I felt five or six more such trapdoors awaited me, which would take a total of about two weeks of darkness to fall through. Then I would see the other side of my personal struggle, my lifelong dilemma. I still await my chance.

There were times I felt I was crawling in my skin. So the whole thing was alternately very pleasant and very unpleasant. But it is no worse than what I go through anyway. It is just accelerated, concentrated, and without distraction. And there is a good chance of never reliving the horror again.

fulfilment

A very pleasant effect of this restful attitude becomes more apparent the longer a retreat goes on: a sense of fulfilment. It is as if all one's futile efforts of the past are redeemed and their goal is finally realized. As lost parts of the self are recovered, the satisfaction of simply being alive returns.

When exhausted, just getting up to pee can feel like a chore. In darkness, this feeling of imposition can intensify at first. But then, imperceptibly, it turns to satisfaction again. For me, for example, to exercise became fun after three days. I felt how frustrated I had been in my inactivity.

Frustration is one of many effects of psychic damage. By definition, it incapacitates us. We can no longer do certain normal things. The organism generates fear of the activity to prevent us from trying, failing, and hurting ourselves even worse.

But we still desire these activities. Frustration is the conflict between desire, fear, and disability. The organism thus expends a tremendous amount of energy to keep us safe in our incapacity. Recapitulation removes the cause of fear, enables fulfilment of desire, and releases vital energy for other tasks. Self-recovery accelerates and deepens, and with it, satisfaction in living.

not

There are three things the hygienic use of darkness is not.

1. It is not a spiritual discipline like meditation. Discipline is consistent exercise of the will. Will is the most delicate, energy-consuming, and, due to atrophy, ineffective part of the psyche. The psyche is the system most in need of rest. So discipline sets into motion and takes energy from the healing of the faculties it depends on while giving the least possible benefit for time, energy, and effort expended. It produces impressive results only by our abysmal standards. It prevents accomplishment of the top priority: full recovery of the psyche from its catastrophic damage.

Spiritual meditation, like all spiritual practice, entails *super-effort to force access to subtle energy reserves to fuel artificial transformation*. The hygienic approach entails exactly the opposite: *profound rest to accumulate energy for natural self-restoration*. At rest, the conscious self attempts nothing to ameliorate suffering. It only provides conditions of healing to the unconscious, autonomic self, whose job is to heal the organism.

Discipline begins with accepting as real, as natural, the appearance of an intrinsic internal conflict: original sin. Next, one struggles “against nature” (as Gurdjieff put it), fighting habits with practices to achieve an ideal. Hygiene begins with an assumption of natural harmony, of non-contradiction and a logical explanation of illness. This naturally motivates one to easily fulfill its aim, which is healthy in reality.

Lastly, discipline sets up artificial dangers and obstacles by partially retaining willed control of the process. Then it spreads fear about retreating without the necessary preparations guided by experts of the tradition. It’s a self-fulfilling delusion if not an outright racket.

2. It is not therapy. Therapy is done *to* a passive organism from the outside. The therapist, therapy, and therapeutic substances or machines are the principal actors in a therapeutic session, not the organism itself. While depending

on the organism to react to treatment, therapy views the organism as incapable of initiating a movement toward health. It fails to see such movement in disease itself.

Contemporary science has a similarly objectifying approach to darkroom retreating, though in reverse. It is called *chamber REST* (Restricted Environmental Stimulation Technique). As the name implies, and in accord with scientific materialism, it tends to reduce a retreat and its effects to destimulation: *absence* of usual sensory stimuli. The subject is then probed, monitored, and interrogated as to what is happening in this absence. But the organism does not experience darkness, for example, as the absence of light, as a negative; but rather, as a positive fact, the presence of something which the active organism takes hold of and uses. It is like night itself, a normal period of time in life. Science misses the enormous intelligence at work and continues stabbing in the dark.

In a darkroom retreat, darkness does nothing. Like air or water, it merely presents an opportunity to the self-preserving organism to better pursue its ceaseless tendency toward wholeness. The principal actor is life, not its conditions nor any treatment.

3. It is not a psychedelic trip: using abnormal conditions like sleep-deprivation or substances to consciously experience normally unconscious phenomena. Nor is it thrillseeking. Endogenous DMT highs do happen in any darkness retreat that is long enough. It is entertaining and even fulfilling. But having cool experiences is not the point. Recovering the capacity to have cool experiences at will is the point. Here at Hygiene 3.0 Headquarters, we are cutting through spiritual materialism.

These three approaches all share the vain attempt to end suffering by making the unconscious conscious. It is as if mere attention, analysis, or reconditioning could fix the unconscious. They try to willfully improve what they regard as an inert, even resistant unconscious self, as if it were incapable or disinclined to. Unfortunately, this attitude is ignorantly coercive toward the limited and injured conscious self and discouraging

to the omnipotent unconscious self. It is internalized tyranny predictably accompanied by a strike by the forces capable of the work.

In contrast, hygienic use of darkness is passive as regards the will. The conscious self only plays a supportive role. The unconscious autonomic self is the principal actor. It is recognized and supported. Zero conflict. Maximum efficiency. Perfect result.

One way or another, successful retreating requires cooperation with a supreme intelligence and power that will direct the process. In spiritual traditions, this means one's mature spiritual practice combined with the in-person guidance of a realized master under the blessed influence of an authentic lineage in service to god. (And good luck arranging all that.) Fortunately, the essence of all that is actually the simple recognition of the autonomic self. This is the hygienic approach. It involves no gold-leafed statues or exotic rituals, but it has the virtue of being cheap, quick, and easy to remember when the lights go out and you can't read anymore.

mechanics

food

Attention to diet and nutrition have always been a big part of Natural Hygiene. Due to decreased activity, stress, and appetite, darkness presents a miraculous opportunity to:

- eat well
- interrupt the malnourishing, dissociative, toxifying relationship with food from which most of us suffer
- clearly experience one's thoughts, feelings and sensations

This is why I serve and recommend only fresh fruit and greens to retreatants. This is the frugivorous diet, common to all anthropoid primates like us. Being perfectly appropriate for human anatomy and physiology, these foods only nourish us. They don't medicate us. They neither stimulate or intoxify the system, nor overtax digestion, nor suppress feeling or memory.

For more about frugivorous diet, I recommend [The 80/10/10 Diet](#) by Dr Douglas Graham. He is a professional hygienist, 30-year frugivore, former Olympic athlete and trainer to professional athletes. Also, watch some videos of [Loren Lockman](#), another master hygienist and 30-year frugivore, apparently sent from the future to show us how to eat and relate to food.

If the prospect of eating just fruits and vegetables utterly stops you from retreating, then plan to eat as simply and naturally as you know how. Feel free to write me with your limitations; I am happy to help you avoid toxins often regarded as healthy. Reversing illness and suffering is a process with its own logic. Darkness is a starting point. Then it's one step at a time.

Please note that just because the frugivorous diet consists of all raw food does not make it the "raw food diet". Frugivorism has a rich set of criteria about food: timing, quantity, proportion, combination, season, source, one's *feeling*, etc. It is a biological description, not an ideology like fruitarianism or veganism. Raw foodism is an ideology. It only has one criterion: no high-heating of food. Otherwise, anything goes! It lacks depth and seriousness. It is reductive fanaticism, not a whole relationship with food. I strongly recommend against raw foodism and the quasi-cults that grow up around it.

preparation

Since one can do nothing directly in a retreat to cause healing, preparing for it consists of providing its simple conditions:

- read the rest of this book
 - learn the idea of the hygienic (passive) attitude toward healing. No need to believe it before seeing its truth for yourself in darkness.
 - assimilate my discoveries and avoid my many errors
- [design](#) and [make](#) a darkroom (1 month)
- learn enough about eating frugivorously to feel satisfied (1 month to read and apply Graham's book)
- schedule a retreat

- arrange support. This is important for mechanical and psychical reasons. See [*protocol > support*](#)
- obtain food

Deeper preparation than that is made the same way you prepare for weeks in traction in a hospital bed following a disastrous car crash. Ie, it is too late. You are already prepared.

3 - psychology

intro

It's time to get our hands dirty. Something is broken and we have to fix it.

Hygiene's basic structure is sound. It is objective. It deals in universal facts of biology. It constrains its analysis and recommendations to the abilities of a reasonable person living an ordinary life anywhere in the world. If hygiene has a problem, it is only due to not being hygienic enough. It is because its secondary ideas or practices contradict its fundamental principles. Once we discover a problem, we can use hygiene's own principles and methods to correct it.

Darkness exposes flaws in hygiene's secondary structure. Hygiene must become more hygienic to accommodate darkness and its implications. In this chapter, we'll pop the hood of hygiene. We'll analyse its flaws and make necessary modifications. The result will be a philosophy that works better by orders of magnitude.

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Lacking a psychology, hygiene could not penetrate the depths of human experience. It could not deal with the grave issue of trauma. Hygiene has focused on daily choices. Trauma doesn't happen every day. It lies beyond one's control. Changes of habit affect it little. Trauma strikes, incapacitating whole systems. It distorts their character and behavior beyond recognition.

Besides rest, trauma is the most influential force in our lives. Lacking the greatest means of profound rest, hygiene was helpless. It passed the buck to doctors and priests. This subordinated hygiene to medicine and religion for nearly two centuries.

Hygiene's helplessness disappears with four changes:

- organization and completion of its laws
- locating trauma at the root of illness

- recognizing darkness as the essential means nature provides us to heal from trauma
- including a psychology based on these facts

With these, hygienism becomes a complete system of health. It is capable of addressing every illness people face, physical and psychic. No one need suffer further the absurdities of medicine and other quasi-scientific systems, rooted as they are in the mystical doctrine of original sin and practice of exorcism.

The acid test of any science is its ability to predict events and thus cause or prevent them if desired. By healing from trauma, we not only end dysfunction and suffering. We prevent unconscious repetition of trauma through common disasters like car crashes, familial breakdown, and psychosomatic illness.

By contrast, medicine can only deal with trauma after the fact. Its tricks for treating it impress us, and we respect the willingness of doctors to try. If medicine were science, it could explain, predict, and prevent further trauma. The attention it puts on treatment diverts attention from its incapacity. It represents a declaration of failure to understand and of helplessness to eliminate the cause of our recurring disasters.

We are all moments from relief, days from restedness and healing, and months from total recovery from 13 millennia of abysmal problems, failure, and suffering. The cause of joy—an organism restored to wholeness—is at hand.

Safe in the submarine of this insight, we will plumb the depths of the hygienic use of darkness. We will begin by reviewing and critiquing hygiene's existing framework for understanding illness: its incisive **pathology**. Then we will go beyond it in frank discussions of **trauma**, **psychosis** and their deeper social and natural causes in **cataclysm**. We will finish with an outline of a new and **hygienic psychology**, which promises to unleash hygiene's power and lift humanity from its debilitated state.

pathology

Pathology is the study of disease: its nature, causes, and symptoms. Pathology guides our response to disease. Every school of health has a pathology, a theory of disease. Many schools are named for them. They are primarily orientated to disease and their artful responses to it. Examples are homeopathy (*homeo*: same), naturopathy (*natur*: of nature), osteopathy (*osteo*: bone), allopathy/medicine (*allo*: other). By contrast, hygiene is primarily concerned with the cause and conditions of health. Hygiene's pathology is merely a branch of it called orthopathy (*ortho*: correct).

Hygiene's generic pathology could not be simpler. We become unwell because we've been hurt, poisoned, or exhausted. We get well when our organisms fix, clean, and recharge themselves.

1. causes of disease

1. **trauma**: a mechanical injury causing immediate damage to living tissue, whether physical or psychical, subtle or gross. The younger the individual is, the greater his susceptibility to trauma, the subtler its form, and the wider its variety (eg, not sleeping with parents or not being nursed); yet the more rapid his recovery can be. If unhealed, trauma leads to all kinds of illness over many years.
2. **enervation**: a rapidly lowered energy state from overwork, distress, intense emotion, or abnormal environmental factors: overwhelming danger, temperature, atmospheric pressure, noise, frequencies, vibration, etc
3. **toxemia**: sudden, overwhelming introduction of poisonous materials (air, water, food, solids), emotions, and ideas

2. processes of healing

1. **repair**: the renewal and replacement of tissue after normal use and the stitching of tissue back together following trauma

2. **elimination**: removal of endogenous waste and exogenous toxins from cells through the lymph and organs of elimination
3. **re-energization**: recharging of nerves and refueling of cells

This pathology is simplified and radicalized compared to hygiene's traditional pathology. The old pathology helps explain disease once it has begun, but not its inception. We will review and critique it now.

seven stages of disease

In the 1930s, with a century of prior art to work from, hygienist Dr John Tilden formulated the seven stages of all chronic disease. Each stage describes what happens as our energy level declines ever lower. Note that a sick person can move down the steps and become sicker, or up and become well. It is simple cause and effect. Hygiene proves in theory and repeatedly demonstrates in practice the reversibility of the trend.

We have [Victoria Bidwell](#), a tireless contemporary hygienist, to thank for the following cogent summary of [Tilden's analysis](#) of disease, originally from her work, *The Health Seekers Yearbook*.

1. **Enervation**: Nerve Energy is so reduced or exhausted that all normal bodily functions are greatly impaired, especially the elimination of endogenous and exogenous poisons. Stage One thus begins the progressive and chronic process of "Toxemia Toleration" that continues through all of the following stages. The Toxic Sufferer does not feel his "normal self." He feels either stimulated or depressed by the poisonous overload.
2. **Toxemia**: Nerve Energy is too low to eliminate metabolic wastes and ingested poisons. These toxic substances begin to saturate first the bloodstream and lymphatic fluids and then the cells themselves. The Toxic Sufferer feels inordinately tired, run-down, and "out of it."
3. **Irritation**: Toxic build-up within the blood and lymph and tissues continues. The cells/tissues where build-up occurs

are irritated by the toxic nature of the waste, resulting in a low-grade inflammation. The Toxic Sufferer can feel exhausted, queasy, irritable, itchy, even irrational and hostile. During these first 3 stages, if The Toxic Sufferer does consult a medical doctor about the reason for his low energy and irritability, the doctor tells him: "There is nothing wrong with you. These symptoms are 'all in your head.' You are perfectly healthy!"

4. **Inflammation:** The low-grade, chronic inflammation from Stage Three is leading to the death of cells. An area or organ where toxicants have amassed next becomes fully inflamed. The Toxic Sufferer experiences actual pain, along with pathological symptoms at this point. With the appearance of these symptoms, the medical doctor can finally give The Sufferer's complaint a name. Traditionally, medical scientists have named many of the 20,000 distinctly different diseases after the site where the toxins have accumulated and precipitated their symptoms. Once the set of symptoms is conveniently named, the doctor can mechanically prescribe the "antidote" from his Physician's Desk Reference or from his memorized medical/ pharmaceutical repertoire. Standard medical doctors thus commence drugging and treating at this stage.
5. **Ulceration:** Tissues are destroyed. The body ulcerates, forming an outlet for the poisonous build-up. The Toxic Sufferer experiences a multiplication and worsening of symptoms while the pain intensifies. Standard medical doctors typically continue drugging and often commence with surgery and other forms of more radical and questionable treatment at this stage.
6. **Induration:** Induration is the result of long-standing, chronic inflammation with bouts of acute inflammation interspersed. The chronic inflammation causes an impairment or sluggishness of circulation: and because some cells succumb, they are replaced with scar tissue. This is the way we lose good, normal-functioning cells — by chronic inflammation and death of cells. Toxins may or may not be encapsulated in a tumor, sac, wen, or polyp.

The Toxic Sufferer endures even more physical pain, which is intensified by the emotional distress of realizing that he is only getting worse, regardless of his earnest, obedient, even heroic attempts to get well. Standard medical doctors continue with both drugging and surgery and all other kinds of modalities deemed appropriate, both conventional and experimental. ("Induration" means "hardening" or "scarring" of tissues.)

7. **Fungation** (cancer): Cellular integrity is destroyed through their disorganization and/or cancerous proliferation. Tissues, organs, and whole systems lose their ability to function normally. Biochemical and morphological changes from the depositing of Endogenous and Exogenous Toxins bring about degenerations and death at the cellular level. The Toxic Sufferer is "a pathological mess": he is on his deathbed. Standard medical doctors declare at this stage: "There is no hope left. You have just so much longer to live. You need to make preparations accordingly." Failure of vital organs eventually results in death.

revision

Tilden's analysis shows the close relationship between enervation and toxemia as two of the most obvious causes of all illness. Indeed, they play a huge part in ongoing symptomology. It shows where a sick person really is in the course of illness. It can subtly inform one's response. It explains hygiene's countless unreported successes for two centuries with people allopathy had pronounced hopeless.

Usually, hygienists put people to bed with plenty of water and fresh air and ceased to poison them with drugs. If they could improve their lifestyles enough afterward, then they would not relapse. Common advice is to quit the ultra-toxins of coffee, tea, and tobacco; eliminate overwork and reduce stress; increase daily rest; increase fresh food in the diet; take up exercise; fast sometimes; and move away from polluted areas.

But for many, doing all that is a big **if**. If they do not make such changes, then hygiene is unable to help them. Most drift

back to medicine. A few get lucky with alternatives, reducing their worst symptoms. The rest find ways to cope with semi-recovery or perish quietly.

We note the pathology's emphasis on toxemia: chronic internal uncleanliness. This reveals not only Tilden's focus but Natural Hygiene's Puritanical character. It is how medicine trapped hygienism by reducing it to cleanliness. It is why the word, hygiene, makes everyone think of cleanliness no matter what the dictionary says.

The missing link in Orthopathy is trauma. Its absence has undermined hygiene's success and status. Early hygienists viewed chronic illness as important. did not grasp the importance of trauma. They missed its relation to chronic illness, which they viewed as more important. They saw trauma as mechanics best left to surgeons.

For their part, the surgeons relished the challenge. Their willingness to deal with trauma is the source of medicine's dominance today. By surrendering the imperative of trauma, hygiene lent allopathy mythic power.

Most early hygienic physicians started as allopaths. They never shook their fascination with surgery. Surgery makes doctors seem powerful on nature's scale. It affirms civilization's fear of the body and nature. It reinforces the feeling of helplessness following trauma.

Engaging the dragon of trauma with their little swords, doctors acquire the status of gods and heroes. Deep down, everyone knows that trauma is the source of all disease, suffering, and incapacity. Unhealed trauma has destroyed most of our personal power. Anyone who can bring back, even a little, must be divine.

Fortunately, rationality prevails in hygiene, which is, after all, a science. Both etymology and biology help us correct hygiene's over-emphasis on cleanliness. In the three phases of healing, repair is prior to elimination. The organism cleans itself only as it repairs itself. At first, repair always causes a mess and must be cleaned up as it proceeds. Until then, damaged tissue is unprotected and attracts foreign matter. It is dysfunctional and cannot clean itself. Beyond a certain point, cleaning without repair is pointless. The body knows it and awaits a chance to repair itself. This explains endless

detoxification when switching to a “clean diet”.

Likewise, the organism reenergizes tissue only as it repairs and cleans itself. Tissue is fully charged only when integrity is completely restored. Therefore, trauma comes before enervation and toxemia in the pathology. Remaining stages become subordinate to these primary three. Thus our revised pathology.

Disease can begin with any of these. But chronic illness generally originates in past unhealed trauma. It set up the conditions for enervation or toxemia. If enervation or toxemia occur in the normal course of living, it must be extreme to lead to chronic conditions. Without trauma, self-corrective instincts usually remain intact. They immediately prompt an individual to restore normal conditions even if enervated or intoxicated.

We seem caught in a strange dream, half-waking and prolonged. But rather than force ourselves awake with treatment, substances, or discipline, hygienic darkroom retreating lets us sleep it off. Hygiene has always been a kind of physiological judo, not resisting but using the force of disease to bring its own resolution. It is calm, understanding, effective. Rather than wait for trauma to replay its disastrous drama in our lives, we can finally prevent it. We simple take hygiene’s peaceful, reassured approach to resolving its cause once and for all.

Hygiene is partly a reaction to allopathy, which we are so exposed to. So next we will examine medical pathology.

allopathy

Critics of medicine first called it allopathy. Medicine uses poisons to cause symptoms of *another* disease. The idea is that, in the body’s forced struggle against the other disease, it will overcome the first one. Then the poisonous medicine is removed. The patient quickly recovers from the artificial disease and is left in health.

When sick, take poison. Get sicker to get well.

The doctrine of original sin underlying allopathy says life is inherently corrupt and impotent. Aging, disease, and suffering are our fate. This is why allopathy views disease as natural and unavoidable. Nevermind that intact organisms are healthy; that survival requires health; that health is the identity of life;

that near-universal health in the rest of nature contradicts the idea of life's inherent sinfulness. Allopathy doubles down on common mystical assertions of human exceptionalism. It pretends to be rational and scientific while viewing health as an unexplainable stroke of luck. "You have a good constitution," doctors say, as if that is a helpful observation. But they see nothing wrong when people get sick. It's just how life is. So medicine is not an abject failure.

This is why doctors gloss over causes. They often speak in tautologies, substituting diagnosis for explanation. For example, "Your bowels aren't working because you have Crohn's disease," as if the name is an irreducible primary, with nothing left to investigate. It's just life expressing its weak, morbid nature. They might look down another level or two of causation in explaining illness. But this goes against their premises. They usually skip right to symptomology and treatment, syringe, scalpel, and the germ theory of disease in hand.

The germ theory of disease says microscopic invaders cause disease. We are victims of infection. The organism is helpless. The doctor is capable. and must fight, overcome, and root out the germs with drugs, treatment, and surgery. He is a physical exorcist.

Trouble is, germs don't always result in the disease associated with them. They aren't always present in it. Getting rid of them doesn't always get rid of the disease. And getting rid of the disease doesn't always get rid of the germs that supposedly caused it. So much for the germ theory.

On the other hand, distinct patterns repeat among those who suffer. Those who don't suffer exhibit quite different patterns in their vital factors, history, and lifestyle. The differences reveal the ordinary and predictable character of the causes of disease.

In response, medicine continually moves the goalposts. It invents new diagnoses to cover for the sheer insanity of its pathology. It's a holy war and logic does not apply.

Fortunately, people tire of this hairsplitting. They just want to be well so they can get on with their lives. They quit the doctors, strike out on their own, and hope for the best. This

is remarkably successful because medicine is so harmful⁶.

The hygienist's rational and benevolent view of disease keeps him cool as a cucumber. He does not react. He immediately provides good conditions. He observes. He studies. He modifies the conditions as necessary. Disease is a normal function of an organism under poor conditions. It is not an enemy but a messenger. One does not fight against it but cooperates with it. It is not a foreign entity to attack and expel. Hygiene makes the time necessary to correct allopathy's drunken imbalances with careful etiology (study of causes).

This approach reveals the poor conditions and the ordinary ways to correct them. Indeed, a client of a hygienist is really a student. He soon learns to take care of himself, then his family and neighbors. It's open source health care. Viral, so to speak.

For further study of hygienic pathology, see Herbert Shelton's two volumes on orthopathy. One is on [general pathology](#), one is on specific [symptoms and responses](#). Now we will more closely examine the primary cause of disease, trauma.

trauma

In the course of days alone in a darkroom, psychic trouble from one's past inevitably comes to the surface. Buried thoughts, feelings, sensations, and memories of trauma sometimes become conscious as the psyche repairs itself. This is not the torment of endlessly reliving the past, but part of final recovery from it.

Why are these things so deeply buried?

Trauma causes the first four stages of disease that Tilden describes immediately: enervation, toxemia, irritation, inflammation. The organism surges into action with the shock and sudden demand for energy, nutrients, circulation, and hormones to manage pain and awareness. Meanwhile, incapacity and malfunction snowball.

⁶Wherever doctors have gone on strike, life expectancy increases overnight by 9 years and falls again when the strike ends, and a hundred other amusing facts about medicine. See Dr Robert S Mendelsohn, *Confessions of a Medical Heretic*. See also [Medical Myths](#)

Consciousness contracts with trauma. The psyche contracts from the world on a sensory level. It restricts higher functions like reflection and reason, diverting their energy rations to stabilize critical functions. Awareness of the painful event itself is unnecessary. It often disturbs the process. This is why trauma manifests as amnesia, denial, and stupidity, callousness, clumsiness: the inability to remember, to admit, to know, to feel, to move.

Many movies have an amnesiac premise. The protagonist is injured, cannot remember his old life, and has a new adventure. Few of us have personal experience of anyone like this. Why do such movies continue to draw crowds? It is because we all suffer a kind of amnesia and subconsciously recognize ourselves in these stories.

In fact, our amnesia is called infant or childhood amnesia. Who remembers his birth or first years? Who would want to? People and even "scientists" generally believe that memory does not reach back that far. But indigenous people and less traumatized civilized people routinely demonstrate something else, casually recounting details of leaving the womb, meeting their parents outside, and encountering the world around them for the first time.

Denial is not moral failure. It is unconscious biological success. Devastating trauma usually occurs in infancy. It overwhelms the fragile structure of an infant's consciousness. Denial locks down basic functions in the attempt to prevent trauma from shattering psychic integrity. Overwhelming trauma causes failure and death results, as with SIDS—Sudden Infant Death Syndrome. Escaping with autism or blindness, for example, beats dying. Denial is biologically maintained until the psyche heals enough to bear witness to the horror of what was denied.

Meanwhile, we suffer from three other epidemics: stupidity, callousness, clumsiness. Psychic damage causes decreases in thinking, feeling, and moving intelligence. The normal brightness, love, and grace of most children give way before they have a chance to establish themselves. We marvel at the pitiful results, in others and in ourselves.

In darkness, damage begins to heal. Denial begins to lift. Traumatic events are remembered or acknowledged. As the

capacity for feeling is restored, frozen feelings resurface. Insight comes. Stupidity and malcoordination lift. The energy to recover strength flows back in. The organism paces this sometimes intense process with great care. It never goes too fast or does too much. The fact that it is happening proves you have the capacity to handle it.

Gaining confidence in this capacity takes time. In [*protocol > discomfort*](#), I describe some ways I learned to moderate intense memory and feeling in darkness in the meantime. Then, at points, one is inspired to let go. The autonomic self rushes in to catch your fall. In a series of [reports](#), I have recorded my experiences in darkness of beginning to heal from major trauma.

What trauma? I mean the routine brutality of our lifeway. It touches virtually everyone from before birth. I mean not just the bad things we condemn, but common atrocities we mistakenly accept. I mean our many offenses to nature. It already worked out every detail of a happy existence from the beginning of time. In our pathological lifeway, we transgress them continually.

I'm going to list common examples of the plague of polite violence I refer to. One of my editors, a wise and loving man, has warned me I will lose readers by doing so. I see no way around it. The crimes must be named.

- unintentional conception and ambivalent pregnancy
- birth intruders (doctor, midwife, priest, etc)
- post-partum attachment failure (through physical separation, exhaustion, and emotional unavailability)
- vaccination, circumcision
- formula-milk, pacifiers, illegal public nursing
- being unheld, unslept with, unnursed, and diapered
- absent, pushover, smothering, abusive, and negligent parents
- nannies and day care
- cribs, playpens, strollers (the worst designs of all time, which crystallize alienation in the nervous systems of billions.)

- television, computers, games (screen technology causes not mere atrophy, but lifelong damage to the imaginative faculty when much used at critical phases of development.⁷)
- factory food (including unripe harvesting, chemical farming, genetic modification, irradiation)
- insincerity, negative emotion, and irrational ideas from others
- and finally, the last nail so big it splinters the coffin: *school*.

The violence of job, military, hospital, the street, and prison go without saying. These things are even worse when they happen to infants, who have a millionth the capacity to endure them.

Of exactly what brutalized *you*, you may already have some idea. I invite you to find out for sure in darkness. There you have a real chance to recover from it once and for all. Between retreats, the depth psychologists mentioned below can also help provide words for what you are going through.

Let's finally get it through our numb skulls: no adult can get brutalized day in and day out for years without being affected. How much worse is it for an infant? We are not indestructible. We are vulnerable to injury. This is not a flaw. It is the conditional nature of organic existence that defines life and makes our spectacular adaptability and joy possible.

Personal failure originates in psychophysical malfunction from deep damage. We cover up this unpleasant fact by moralizing about weakness, cowardice, inability. Or we shrug it off mystically as bad luck. Chronic failure is not our fault but the result of disaster. We are not weak or bad. We are hurt. We don't need to work harder. We need time to rest so we can heal and recover capacity. I suggest we take a mass leave of absence from our absurd existence and find comfortable places to collapse. We'll do it in shifts.

Damage from major psychic trauma is real. It is deep. It

⁷Joseph Chilton Pearce, *Evolution's End*

persists through generations until it heals.⁸ Meanwhile, it disrupts everything else in our lives: memory, reliability, conscientiousness, poise, digestion, sleep, circulation, coordination, humor, desire, clarity, etc. Everything. The mounting disaster motivates us to take it seriously. We can heal from it. We just need basic, decent conditions in which to do so.

Lastly, unconscious psychic trauma often expresses itself somatically: as physical illness. If you are physically ill, you will certainly find psychic wounds underneath your condition, wounds of surprising intensity. These wounds are doors. On the other side of them lie unexpected paths back to physical health and personal power, the power to live.

Until now, hygienists have regarded the primary causes of disease as enervation, an excessive lowering of vitality; and toxemia, a general poisoning, mostly from internal waste but also food and environmental poisons. These, hygienists have asserted, come from poor habits.

But whence came poor habits? A healthy creature has strong self-correcting instincts. How could it persist in unhealthy behavior out of the blue? It makes no sense. Something must have happened to knock it far off course. Causation by poor habit fails in theory and practice. The awesome influence of trauma explains everything and reveals the solution.

Most of this is standard psychology. Freud himself said all our suffering comes from trauma but, ironically, that it is necessary for civilization, which keeps us from savagery. Another psychoanalyst, Immanuel Velikovsky, drew the opposite conclusion. Trauma comes from ancient cataclysm and we must heal from it to avoid repeating it unconsciously with nuclear war. Wilhelm Reich, Jean Liedloff, Frederick Leboyer, Arthur Janov, Alice Miller, Alexander Lowen, Joseph Chilton Pearce also took heroic stands for humanity in describing the routine brutality of civilized life. And they found various ways to deal with the worst of it. They only did not imagine the psyche could repair itself without therapy or discipline.

Suffice it to say I'm no scientific materialist. This quaint philosophy holds that a bludgeoned sensorium aided by com-

⁸This provides the unconscious motivation for the current over-fascination with genetics, a negligible and corrupt quasi-science shot through with distrust of life and mechanistic control-freakishness.

puters is our only means of knowledge; that humans are so special that nature has exempted us from its laws; and that technology and really anything generated by civilization itself is inherently good until proven otherwise. Find excellent elaborations of the humor in this idea in *Ishmael* by Daniel Quinn, *Running on Emptiness* by John Zerzan, and Rupert Sheldrake's critique of scientism.

The human organism is resilient in some ways and vulnerable in others. Darkness allows our autonomic selves to put both these qualities to use fully. In blackness, in jetty refuge, in the soft keep of bedroom or cabin, we will right unfathomable wrongs.

psychosis

Trauma is not just a memory. It is damage with tangible, ongoing consequences. As you would expect, psychic trauma causes psychic illness: psychosis.

Every day, under our breath or aloud in exasperation, we call people and situations crazy. But what if our colloquialism were clinically accurate? What if it were precisely what is wrong with us? What if we have been right about it the whole time?

Sages throughout history have observed in us civilized people a pattern of *mass functional psychosis*. Mass means universal. Functional means able to survive long enough to raise children to reproducibility. Psychosis has two senses.

Broadly, psychosis means psychic illness. This mostly results from trauma. This leads to exhaustion and toxification: the abject absorption of poisonous ideas, attitudes, emotions, and behavior. These compound in further dysfunctions in thinking, feeling, and moving intelligences. Dysfunction leads to failure and pain, both physically, emotionally, and intellectually. Sure enough, sickness, unhappiness, and confusion (or dogmatism) characterize civilized people. Such comprehensive chronic dysfunction is the principal sign of our psychosis.

Narrowly, psychosis means the inability to distinguish reality from fantasy. Our particular fantasy is that the sliver of reality we are aware of makes up the whole of reality. Which

we are unaware of due to constricted psychic function. Any idea that doesn't fit into our postage stamp-worldview gets unnoticed, ignored, or crushed. We can't help it. It is the inevitable pathology of mass major psychic trauma.

The sliver consists of the grossest part of reality. Scientists call it spacetime: three maneuverable dimensions of space, with one dimension of time, the present, locked in forward motion. Being grossly sensible, spacetime is especially amenable to intellection and mechanical manipulation. Thus our hypermental, industrial lifeway. We emphasize thinking at the expense of feeling and, to a lesser extent, action. We exalt the useless activity of athletics and prefer to make machines do the rest for us. Obsessive control of this sliver enables enough of us to survive each generation to imagine we are doing as well as possible.

However, some of us find this common state to be, well, sheer insanity, if you don't mind. We have experienced grace, joy, and flashes of harmony with reality. So we cannot help but see the widespread proofs of mass psychosis in:

- righteous wars against the innocent
- controls in the name of freedom
- poverty amidst mind-boggling wealth
- useless work and wearisome recreation
- undernourishment of the over-fed
- confusing philosophy and soulless religion
- alienation—civilization's calling card
- mass depression, anxiety, schizophrenia, slow or fast suicide
- lifestyle diseases (cancer, diabetes, cardiovascular and digestive diseases)
- stupifying education
- sickening health care

I could go on. No doubt, you could extend the list yourself. Perhaps you have wept over the world's desperate madness. Perhaps you have wept over your own.

Calling something crazy usually halts further consideration and conversation. After all, "you can't fix crazy." So what good

does it do to think about it? Is it even craziness? Or is it human nature, as we have long assumed? That is what most religion and philosophy say. Since nothing overcomes nature. So they render themselves helpless by their own pronouncements. Also, they excuse themselves.

Conventional psychology has failed to fix our craziness. And psychological reformers have proven ineffective. They consign their tough cases to psychiatry or surrender to its worship of drugs. It is the further medical application of our culture's mythos of original sin. In other words, debilitation, incompetence, failure, and suffering are human nature. We refuse further examination of symptoms and causes. Mass psychosis is the biggest elephant in our room.

I submit, we are actually crazy. But we weren't always. Something went terribly wrong and here we are. Happily, we are alive. Therefore we are self-healing. So somehow we can recover.

What would we recover? Common sense, memory, and honesty. Joy and empathy. Vigor and grace. Just for starters. But much more awaits us. When the thinking, feeling, and moving centers of intelligence function again, and in harmony with each other, life will improve to a degree known only in legend.

I mean engagement with the other basic plane of reality. It mirrors spacetime, so some cutting edge scientists call it timespace: three dimensions of time—past, present, future—and space fixed to one location at a time.⁹ Australian Aboriginals call it dreamtime. Kogi Indians call it the *aluna*. They access it at will for daily living. It is how they can track someone 100 miles through the desert a year later with only a scrap of his clothing. Or talk to people on the other side of the world without telephones. Or go out to meet a scarce deer in the middle of nowhere to bring back for food. It is how spiritual adepts famously know things they have no normal way of knowing.

Dreamtime is perceived primarily through the feeling center of intelligence, not the senses. It is intuition. With psychic integrity, it can be just as precise and accessible as the eyes

⁹David Wilcock, [Enigma 2012](#)

aided by microscope or telescope, or a camera on a drone.

The feeling center, being more fragile than the sensorium and less aggressive than intellect, rarely works well among us civilized people. So to scientific materialists, dream-time doesn't exist. They dismiss it out of hand despite millennia of evidence. Which even most civilized people have some of. Knowing someone specific is about to call is common. Such strange experiences stick in one's mind, unexplained for decades like personal X-files. If you talk about this stuff in conventional settings, others will call you crazy. But if you rest in darkness long enough, access to it reopens and promises to return permanently.

I will not dwell on something so unusual you must see it for yourself, as you will in darkness. But this vast and rich side of life that we largely miss must cease going unremarked in psychology and hygiene. It is stupid and embarrassing. The academy likes to ignore the two other greater bodies of human knowledge: the spiritual and the indigenous. We will not.

By my rough estimation, we are currently functioning at 2% of capacity. In other words, things with us are as bad as they can get while still allowing us to raise children to reproductive age. To embellish the idea, at 1%, you're institutionalized; 0%, dead. In the opposite direction, at 3%, you're a local hero; 4%, famous; 5%, a national star; 10%, a genius; 20%, a saint; and 30-40%, a messiah.

The greatest people in our history had to lower their level of functioning from a normal 90-100% just so we could bear their presence. But what did each of them say, one way or another? *All this and more ye shall do*. This is our task. The first person to raise from the dead is oneself.

The hygienic view of health and sanity is the brain of this approach. Darkroom retreating is the gut—the action. The testimony of mass functional psychosis is its broken heart. My online essay, [psychosis](#), records it purely and even more forcefully.

cataclysm

Pathology is the study of illness, especially its etiology: the chain of cause and effect that leads to symptoms.

Hygiene is radical because it deals unflinchingly in first causes. It begins by observing that health is the normal state of organisms under normal conditions. Life itself started out in integrity and health. Nature cannot generate a diseased species. Disease only occurs when something goes wrong with conditions, when harmful ones are present and beneficial ones are absent or in poor proportion.

This gives hygiene a rational standard for evaluating conditions proposed as beneficial. Hygiene asks, what normal relationship to life does this condition have? Did its absence cause the disease in the first place? If not, then its presence won't correct matters and we can dismiss the proposal.

In the case of using darkness to heal from psychic illness, well, once upon a time, we *were* deprived the shelter we instinctively sought in order to heal from whatever traumatized us. We got hurt but got no chance to heal. Resting in a dark-room finally addresses this little-noticed intermediate cause of ongoing suffering and illness.

Why were we deprived? One way or another, our parents, our source of shelter, were also the source of our trauma. Busy inflicting one, they could not provide the other very well. It is the absolute worst, most taboo, most terrible truth we all know and spend most of our lives avoiding. I am sorry.

Of course, they suffered similar trauma at the hands of their parents. It rendered most of them incapable of providing us such shelter. It compelled their inhumanity toward us. They denied us rest just as they denied their own need for rest, just as their parents conditioned them to, just as their parents were equally traumatized, denied, and conditioned, going back 400 generations. On this level, everyone is innocent.

However, everyone exists on many levels, not just such abstract and eternal ones. On a concrete and immediate level, all parents remain 100% responsible for what they did and did not to children in their care. Only by viewing parents as responsible can we become responsible parents ourselves. Otherwise the double burden is too much. Those who shield

their parents from justice, even privately, inevitably unload the injustice they suffered upon their own children.

Major trauma injures, shocks, and disorients everyone concerned. One gets lost in the slow-motion nightmare of its infliction. Who deals the wound and who sustains it? Who was helpless and who was at fault? Of course grown-ups start it with kids. But kids feel it is their fault. Lines blur and before they know it, people have become their parents and the cycle begins again.

How did the snowball of trauma begin?

People reproduce to continue themselves. Thus sane people do not hurt their children. Nature does not generate diseased species. Humanity had to have started off alright. The self-correcting instinct of healthy animals is too strong to violate merely by will or persist in by accident. Life pulls us back onto the right track no less than other animals—when we're healthy. This means psychophysically intact.

The trauma had to have originated externally. It had to be *huge* to knock so many of us so far off course and disable us so badly we couldn't begin returning for so long. Major trauma to an individual or one group would not be enough to do this. Individuals would be helped back to health. In disaster trauma, groups are aided by neighbors or even foreigners. We must think bigger. The psychoanalyst Immanuel Velikovsky, who turned his eye to archeology and comparative mythology, found the mindboggling scale of our emergency.

A global cataclysm in our distant past must have started it. It wrecked everything in one stroke for entire continents of people, so that there was no one left to help. It seems to have been the Biblical flood. Much evidence points to one 12,980 years ago. But perhaps it was multiple super-volcanoes due to seismic shift from celestial influences. A pole-shift that swept continents with earthquakes and tsunamis. A comet strike. A war between the gods or alien invasion. Whatever it was, the result was *cataclysmic trauma*.

Cataclysmic trauma is comprehensive. It kills many people and most elders, who would best manage things. It injures most of the rest. Neighbors cannot help. Everyone for thousands of kilometers is suddenly in the same dire straits. Infrastructure is lost: shelter, food, water, habitat. The landscape

shifts, becomes dangerous. Climate itself changes. A lifeway's entire basis is wiped out, including day to day survival.

Going into caves to rest and heal is common among undomesticated people and animals. But even if someone left knows to do it and a cave remains accessible, too many people need it for longer than it is comfortable. All the supportive systems are gone. People have no chance to heal. They only have what is left inside them. The young tend to survive, but they are less stable psychically, with less wisdom to temper the damage. Life, which had been abundant, pleasant, and easy, becomes a grim battle to survive.

Such a disaster causes psychic trauma and malfunction in nearly everyone. Mass psychosis begins.

In this barren hell, where can people find comfort? In each others' arms, of course. Voluntary birth control, common among indigenous people, is lost with many other subtle capacities. Babies start arriving. Cataclysmic trauma starts its terrible transmission through the generations.

Trauma changes form but keeps its intensity. Society re-arranges itself into civilization to absorb the cosmic blow. Apparently a pathocracy, it quietly finds slightly less harmful ways to distribute and pass on the shock. As horrible as things frequently get, still it is the best we can do. Technology compensates for lost capacity. Quietly, life keeps generating seekers to find out the truth of what is happening. Clue by clue, understanding is assembled over hundreds of generations. At last, the truth dawns.

What if we are the butt of a bad cosmic joke? If so, then our wars, big and small, are pointless. No one started it. No one need be punished. Everyone is essentially innocent. Everyone is free to walk away from the conflict and heal.

Trauma from such large-scale events is unavoidable. It is natural. Trying to prevent it is futile. Hope lies in having a way to recover from it.¹⁰¹¹

¹⁰This echoes one of Gurdjieff's main points that a proper psychology and method of living will enable people to deal with life's inevitable *shocks*. See Ouspensky's incomparable spiritual text, *In Search of the Miraculous*.

¹¹See my longer essay about cataclysm, [catastrophe](#)

hygienic psychology

In light of the essence of hygiene, *conditional self-preservation*; the restful use of darkness; and the cataclysmic origin of disease, a hygienic psychology can now be outlined:

1. As organisms, we start out healthy, happy, and harmonious
2. Early major psychic trauma from civilization's routine brutality leaves us damaged, malfunctioning, and suffering.
3. The psyche, as an organic system, is self-healing, provided the proper conditions.
4. The primary condition of healing is *rest* due to the homeostasis, stillness, and accumulation of vital energy it makes possible.
5. Profound psychic rest occurs physiologically in an extended period in absolutely dark environment.
6. Therefore, by retreating in darkness, we gain relief, rest, and restoration to health, happiness, and harmony.

Hygiene upholds basic findings of psychology from several traditions. Hygiene merely declines psychology's conscious over-involvement in the unconscious. The unconscious is competent to fix itself if minimally supported by the conscious. The conscious is otherwise helpless. We are correct in believing we have a problem and need to do something about it. We have been disastrously incorrect about which part of the self has to do it.¹²

fasting

Focusing on profound psychic rest in absolute darkness is new in hygiene. Due to its naive pathology, it has focused on the profound physiological rest of fasting. Fasting has been hygiene's ultimate means of dealing with serious illness. At most, hygiene recommends keeping curtains and eyes closed

¹²Psychologists Michael Meade and James Hillman say it all with the title of their 1993 book, *We've Had a Hundred Years of Psychotherapy—And the World's Getting Worse*.

during fasts. This reduces the significant work of sensory processing of vision¹³. A darkroom retreat embodies this principle fully. It provides the energy and, frankly, the psychic security of food, until the underlying psychic system necessary for comfortable fasting has repaired itself.

In other words, the psychic system is more fundamental than the digestive and eliminative systems. Darkroom retreating is thus more urgently needed than fasting in most cases.

Furthermore, darkroom retreating is inherently much safer to do alone. In darkness, awareness of internal sensations and their meanings becomes clear and fine-grained. This integrity and knowledge intensifies motivation to learn hygiene. Fasting requires basic psychic integrity, self-knowledge, and a comprehensive grasp of hygiene in general and fasting in particular. Thus hygienic darkroom retreating will open the door to unsupervised long fasts on a wide scale.

Professional hygienic fasting supervisors attempt to substitute themselves for these prerequisites of fasting or teach them in the usual slow, incomplete way. Consequently, only hundreds of people fast per year in a remotely proper way, not the billions who need to. Hygienic darkroom retreating recontextualizes the work of fasting supervisors. Retreating in darkness themselves, they will regain the capacity to operate at a global scale, not just with the lucky few.

miracle

As in fasting, one hardly knows in darkness what the organism is doing at its deepest levels. Occasionally there is a chance to consciously participate in the process. Or to find out *why* things have gone wrong if it is important to change ideas and behavior related to it. At mostly one feels discomfort or a strange subterranean rumbling.

But one always knows the result: restoration of function—recovery of the lost self—usually accompanied by feelings of contentedness, presence, and euphoria. Darkroom retreating

¹³Bernarr Zovluck, [Alternative Healing: What Nobody Understands](#) Frederic Patenaude met this Los Angeles hygienist and mentioned him and his advice to me. Later, this comment would help me connect darkness with hygiene.

reveals the marvelous self-healing power of the organism under proper conditions. But for those who have suffered and failed for years with other approaches, the process is nothing less than miraculous. As with the rest of hygiene, time in darkness shows that if one wants a miracle, one need only provide its conditions.

And then? Healed from trauma, one will no longer be compelled to repeat it. One will absorb and redeem its history and consequences. As with the rest of hygiene, hygienic psychology's bad news is much worse, and its good news is far better than anyone dreamed.

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The maturation of hygiene's laws; the emergence of a hygienic psychology; the identification of trauma at the root of all illness; and the greater importance of darkness than fasting for resting and healing have massive implications for hygiene's pathology and destiny, and humanity's as well. Hygiene has said illness originates with enervation (low energy) and toxemia. Trauma explains how these conditions themselves originate. And in coming to terms with trauma, hygiene can finally meet and obsolete allopathy (Western medicine) in its stronghold. I discuss these implications further in [hygiene notes](#).

I am only saying enough here to give you a solid basis for beginning to do hygienic darkroom retreats. If you like what happens, further study is natural. For a thorough introduction to hygiene's principles, practices, and intriguing history, read Shelton's [Science and Fine Art of Natural Hygiene](#).

part 2: retreat

4 - format

We can use darkness in various formats for different reasons. Here, I describe formats in which I have experienced deep rest and gotten positive results in my energy level, psychic state, and general well-being. I also explain ways darkness can go wrong and how to easily avoid them.

I recommend gradually increasing the length of stays in darkness. First darken your bedroom for sleeping and maybe mini-retreats (12-16 hours). This improves your sleep and gives you a taste of a retreat. Upgrade it for a 4-day retreat. This gives you relief, some profound rest, and the beginnings of healing.

A dedicated public darkroom works better for 8-day retreats and medium-length retreats (3-8 weeks). I believe we can heal from the core of our suffering in a medium retreat. Your experience at home might inspire you to build such a darkroom yourself. Interest in darkness is growing and the world needs more than the 50 or so facilities that exist.

Greater, probably private preparations must be made for long retreats (3-12 months). We can heal from *everything* in a long retreat, especially physical illness, including aging.

In general, the longer a retreat, the better its conditions must be. This means more silence, space, comfort, and support. While you can pull off a 4-day retreat in a minimalist manner nearly anywhere, even an 8-day retreat requires upgrading. A retreat may prove one of the most important things that happens in your life. It deserves serious attention.

sleep

tonight

Get relief *tonight* from most outdoor ambient light. Put dark, dense sheet material over your bedroom windows and doors. In 5-10 minutes:

- tack or tape up
 - blankets, sleeping bags, dark bedsheets or extra curtains
 - black plastic, carpet, or cardboard
 - or prop up plywood, old doors, or big table tops
 - use whatever you have to cover the windows
- extend corners of flexible materials as far past door on either side as possible
- turn off or cover any devices in your room that produce light
- make sure you have plenty of fresh air, even if it lets in a little light
- block some of the remaining light with a sleeping mask from an airline or travel store; a tall winter hat pulled down, or a dark t-shirt draped over your eyes. Every bit helps.

We all know how it feels to sleep a lot after too many short nights: we feel sluggish afterward. Some people call this getting too much sleep, a physiological impossibility. They just do not know how tired people can get and still not get fired from their jobs. In fact, we are tapping into the first layer of a backlog of lost sleep. Feeling groggy is the first phase of catching up. This can take days. Reversing sleep deprivation is like withdrawing from strong drug. Like me, you may need a retreat to get to the other side of it without backsliding.

In the meantime, this format helps us remember how important darkness is. Next step is to make an [instant sleeping mask](#). When ready for perfect darkness for nightly sleep, make [blackout blinds](#), a [silencer](#) and [lightproof vents](#) so your room is dark, quiet, airy, *and* easily reopened to light during the day.

nightly

We require total darkness to sleep well. No one is an exception to this. You may be able to fall asleep despite the street light right outside your bedroom, but only at the expense of overall function (see the

Law of Vital Accommodation). The circadian system has not changed one iota since industrialization. It never gets used to anything. If light intrudes on your sleep, it will signal the circadian system to make your sleep less deep and restful, whether you know it or like it or not. It's like what many clients told me after their retreats: "I had no idea how tired I was."

From simply darkening his bedroom, a friend reported to me a huge difference in the quality of sleep he and his mate experienced, as well as a return of vivid dreams. I have experienced the same thing whenever I have been able to darken the room I sleep in. As a rule, the darker the room, the better the sleep. 100% darkness is 1000% better than 99.9% darkness. Extinguishing that last bit of light leaves the mind nothing to hang onto, giving new meaning to "falling asleep". See for yourself.

It is best to go to sleep early, from 18:00 to 22:00 at the absolute latest. Then one naturally awakens about 4 hours later for 1-3 hours. At this hour, one is freshly rested, yet the promise of sleep lies ahead. The world outside is quieter; children are asleep; the mind runs more slowly; and inhibitions are slightly relaxed.

Thus sex can be especially gratifying. Many consider it an auspicious hour for meditation or prayer. Use a candle or other dim, warm lighting. Avoiding the cold blue tint of some LEDs, which signals the circadian system to awaken. Light exercise, light reading, and light snacking (on fruit) are fine, too. And perhaps a menial chore or two. But avoid more serious work. It stimulates too much waking thought and distracts from getting back to sleep when tired again.

Usually sleep goes 3-4 more hours. It is deliciously renewing. A nap in the early afternoon, as short as 20 minutes, will refresh you yet again. That is, if you can stand feeling this good.

Before widespread public lighting, this was a common sleeping pattern. It's called biphasic or segmented sleep. It is natural and retreating strongly resets it. If it happens to you, don't consider it strange, but a normal part of human life recovered.

Many aspects of modern life seem increasingly out of control. Blackout blinds offer the unique thrill of reclaiming con-

trol over one of the most basic functions of existence: sleeping and waking. Neither the sun nor streetlighting nor scheduling accidents determine anymore when you wake up. You do, and only when you are good and ready.

retreat

short

Short retreats span from 14 hours to 8 days. You can at least begin at home.

mini-retreat

Note: I do not recommend mini-retreats for everyone, just if you feel strongly called to it and find yourself able to do it without cutting corners and endangering yourself. I cannot do them properly, so I don't try anymore. I just include it because I saw it was possible and I can imagine there are people whose capacity and circumstances make it appropriate.

A mini-retreat allows you to dip your toe into retreating while keeping your usual daily schedule. It includes the two primary phases of a retreat: sleeping long and deeply, and being awake by yourself without distraction for some hours in the middle of the night.

It is the same as sleeping nightly in darkness except you:

- turn off lights by 20:00*
- maintain darkness whether or not you wake up in the middle of the night
- get 1-2 extra sleeps in the morning
- stay in darkness 12-16 hours*

A mini-retreat helps maintain restedness between 4- and 8-day retreats. Some benefits of retreating fade and at different rates. To extend them and smooth the transition to the moment of needing to retreat again, do a mini-retreat once a week between regular retreats.

CAUTION

Do *not* start a mini-retreat after 20:00, nor stay in longer than 16 hours. In me, these induced mild shock and very negative feelings and thoughts that took a 4-day retreat to recover from.

In retreat, the organism strongly resets natural biological rhythms. Namely, going to sleep whenever tired, especially at nightfall. If you can't start your mini-retreat on time, postpone it till you can. Starting regular retreats an hour or two late is less than ideal, but it still works because the organism has time to compensate. This is not the case with mini-retreating.

48-HOUR CYCLE

The human organism in darkness seems to go through a 48-hour cycle with a point of no return after 16–18 hours. So either exit before going past this point or complete the cycle with a 4-day retreat. Otherwise you may experience very negative consequences. It's like jumping out of a Ferris wheel after it has gone too far up. Read my blog post, [how not to retreat](#), for a longer explanation.

Biological rhythms are very powerful and apparently cannot be messed with in this way. So, better safe than sorry, at least until you have retreated enough to feel confident about experimenting with mini-retreats.

4-day retreat

Once your darkening and ventilating measures are working smoothly for nightly use and mini-retreats, you can easily add the remaining elements of a darkroom for a regular retreat. (If you retreat for the first time at a center, you can begin with an 8-day retreat.)

Everyone interested in a 4-day retreat can try one. Though not guaranteed, it is possible to catch up on all the sleep one ever lost in four days. The amount of deep sleep that can be had in such a short amount of time is impossible to conceive

beforehand and hard to believe even after experiencing it. You can get relief from your distress and overstimulation. You can recover homeostasis and equilibrium. You can regain hope and register a memory of feeling very good. While most effects fade after a few weeks, you will begin to recover little pieces of your lost self. Lastly, you start learning how to be in darkness. Your supporter starts to learn how to be around a retreat. You will get a clearer idea about how and when to do future retreats, and for how long.

Timing of regular retreats is a bit more flexible than mini-retreats. Plan to turn off lights between 18:00 and 20:00. If something comes up and you are a little late, it's ok. But if you start after 22:00 due to scheduling, insomnia, anxiety, or addiction, add an extra day and night of darkness to your retreat. This, by the way, is how to begin seriously interrupting these illnesses. The effect of such a short retreat will likely be temporarily. But at least you'll glimpse the light at the end of the tunnel.

In accordance with the natural diurnal cycle, go into darkness in the evening and come out in the morning. Just stay in extra days in between. This makes the dark part of a retreat 2.5 days (60 hours). Avoid checking the time. Use a cellphone alarm set to a specific day to know when the retreat is over.

Besides sleeping as much as possible, eating, eliminating, and bathing, what does one do in darkness without work, people, or media? Light exercise and restful placement of attention. I explain more about the latter in [protocol > attention](#).

Afterward, slowly re-adjust to light. You did not just watch a matinee in a dark cinema, but spent days in total darkness. Sudden exposure to daylight would be a painful and unnecessary shock. Spend a minimum of 15 minutes gradually re-lighting the room by opening the door and window panels a few millimeters at a time.

CAUTION

I got caught in a whirlpool made of a several 4-day retreats. It has been difficult to break out of. I lost too much [false capacity](#) before restored normal capacity could compensate. Avoid this mistake. If you do one, just do **one or two** 4-day retreats, and

absolutely no more than three. Then steam ahead with arrangements for an 8-day retreat.s_

transition

It takes time to properly readjust to light and ordinary life. So a period of unstressed transition back to it is *just as important as darkness itself*. For every three days of darkness, plan at least 24 hours of identical conditions except with sunlight and walks during the daylight.

Hormones need time to readjust to light. The sense of balance can also be affected. Retreating has often felt like a chemical process, with a feeling of sleepiness or coolness flooding through my brain or hands. And it takes time to reflect on what just happened, to begin integrating the changes, extra energy, and value of the retreat.

So spend the transition quietly. First, uncover at least one window. Take a slow walk or two and sunbathe outside. Visit with no one. Take a nap, covering the windows for it if you like. Then cover the windows between 18:00 and 20:00 and spend the whole night again in darkness.

After your last sleep, slowly uncover the windows. Consider your retreat finished by noon at the latest.

Ease back into your regular life. I mean avoid non-routine activities the first week. You will likely continue to notice effects from the retreat. Due to their dreamlike intensity, I call this the aftermath. See [protocol > post-retreat](#).

If your location has no running water, it's no problem. For this short of a period, it is unnecessary. See [water](#) for a short list of requirements.

8-day retreat

If you have built your own darkroom, only do an 8-day retreat once you and your support team have each done a 4-day retreat. If retreating at an established darkroom, you can begin with an 8-day retreat. The organism's response to darkness is cumulative; the healing process deepens every day. Eight days is more than twice as beneficial as four.

Many of my early clients felt like they were just beginning to get somewhere when their 4-day retreat ended. Some were either so wound up or so rested to begin with that 48 hours

was not enough for them to get anywhere, whether with their exhaustion or their inner struggle. So I upgraded my darkroom to handle 8-day retreats for first-timers.

Sure enough, they did fine and expressed greater satisfaction with their retreats than 4-day retreatants. Scheduling a first retreat of 8 days ensures a breakthrough of some kind is made. I can imagine in some very crystallized cases, longer still will be necessary. Strong defenses and controls must dissolve enough to begin making progress back to health. But 8-day retreats have great potential to support recovery of the lost self.

An 8-day retreat has all the elements of a 4-day retreat, plus:

- a support team of at least three people. Two people should be nearby all the time with one available to respond. This creates psychic shielding for the retreatant.
- after physical restedness is reached in the first cycle, a major psychic issue can arise and be resolved in the second cycle
- a second day of transition is added at the end
- a fully functional bathing facility is added for emotional as well as physical reasons. For remote locations, see plans for a [*portable indoor shower*](#).

medium

A medium retreat lasts 3 weeks to 2 months (including 15 transition days). By all accounts, the process goes really deep. My sense is that the core of one's personal dilemma, the cause of the worst of one's suffering, can heal in a medium retreat. Plenty of problems will remain. But one will be able to solve them. With so much time, the organism can restore capacity and clear space inside sufficiently to finally put things right again. At least, that's the basket I've put all my eggs in. Fingers crossed.

It's best to get away from all accustomed influences and associations to minimize internal obstacles. Now that you know what you're doing in darkness, it's worth paying extra for this. Take a trip at least a couple hours away. Fly to a

darkroom on another continent if necessary. Or rent a fully functioning small house in an unpolluted place and darken it yourself, arranging for maintenance and support.

The darkroom needn't be fancy, but it must work in every way without compromise of function. Someone else, a maintenance person, should have the responsibility of keeping it that way. There's nothing like mechanical issues to ruin a retreat.

Yet another person, a supporter, should be available all the time to make sure you have food, basic comforts, someone to talk to for a few minutes if really necessary. By the time you decide to do it, you will know you are doing one of the most important things in your entire life. Prepare accordingly.

Use the last day or two of your transition to start handling your affairs again: checking messages and accounts, making travel arrangements, etc.

The benefit of short retreats is impressive but shallow and short-lived. Doing a lot of them does not equal doing a few long ones. The law of diminishing returns combines with the frustration of glimpsed but unrealized potential. Boldly escalate from a couple short retreats to a medium one.

Personally, I have been stuck in a rut of short retreats. My goal is to retreat for 20 days (including 5 transition days). In 2008, in my second successful retreat, I had a hunch: in 2 weeks of darkness I will heal from my psychic trauma at the core. This will enable me to put the rest of my life back together afterward. I do not know exactly how long others would have to retreat to reach the same point. One guy I know has been considering this for awhile. In his early experiments with darkness, he got a hunch he would need 3 weeks of darkness. I expect it's a pattern. It makes sense that people come to know what they need the more they get of it.

long

A long retreat lasts three months to a year. I have heard several reports of retreats like this. All had results we would consider miraculous but which are well within the capacity of the human organism. The organism made itself under difficult circumstances. Under ideal circumstances, it is certainly able to remake itself. Perhaps better than new.

[Stories persist](#) of astonishing physical healing occurring in Ayurvedic darkroom retreats lasting 3-12 months: recovering lost hair and eyesight; growing new teeth; and even recovering youth itself. It seems worth looking into. The hygienic protocol for long retreats is yet to be determined. I trust our short and medium length retreats will give us clues. The reports from other traditions are certainly useful as well. For example, in the above story, the yogi exposed himself to a tiny amount of light at dawn. His assistants would leave the darkroom door cracked when they brought him food in early morning.

I like how he attributes his amazing recovery not to his practices in darkness nor the ayurvedic herbs he took, but to Lord Krishna. Krishna is an incarnation of Vishnu, the preserver. He represents the self-healing power of life.

This is part of everybody. It means you and I are enough. Given the chance—the proper conditions—we have in ourselves what we need to recover.



warning

There are four harmful and dangerous ways to retreat in darkness. I learned about them the hard way and am paying the price to this day. The only possible point of my enduring them was so I could warn you. These are little gateways to hell. I sincerely wish for you heed my words and to avoid such suffering.

Fortunately, avoiding it is easy once you know. I will just list them here and point you to longer discussions of them elsewhere in the book. Just say no to:

1. Mini-retreating behind schedule. See *mini-retreat* section above.
2. Ending a retreat without transition days. See *4-day retreat* above and [protocol > post-retreat](#).
3. Doing many 4-day retreats rather than quickly advancing to 8-day, medium, and long retreats. Very serious no-no, folks. Again, see *4-day retreat* above and [hygiene > false capacity](#). There, I have understated the matter simply because it cannot be overstated.

4. Poor support:

- insufficient support
- hostile support (!) or people hostile toward either you or retreating in or even near the same house. Say no to abusive relationships.

5. I know I said four dangerous ways, but maybe there are more. And worse. Why find out? There is no penalty for following the guidelines. Until you have gotten somewhere and know what you are doing, stick to the tried and true. Err conservatively. Be reckless about some other part of your life. The most amazing thing you ever do is bound to have rough edges if handled incorrectly. Don't pet pigs backwards, either.

Ok, now you know, so you are safe. Back to the many wonders of hygienic darkroom retreating.

future

I would like to find the simplest way health, including sanity, can be fully restored. Like perfect healing of a broken bone. To this end, I would like to see hygienic retreat centers worldwide with facilities and support for:

- short, medium, and long darkroom retreats
- fasts (a la Albert Mosseri's groundbreaking [method](#))
- physical retraining
- instruction in healthy lifeway, including both lifestyle and livelihood
- open source research and development of the above
- a village residence for staff, family, friends, and guests, where all this gets applied and tested in real life

In three visits over two years, one would be:

- restored to full function and vitality
- prepared to maintain it in daily life
- prepared to deal with the residue of the past

For a few years, I focused on designing and building public darkrooms. Then came a few more years of making and helping individuals make private darkrooms at home. As a consultant, I am also available to help:

- operators of public dedicated darkrooms for short and medium retreats
- those with existing centers wishing to include hygienic darkroom retreating in their programs
- developers of hygienic retreat centers as I just described

Those who support hygienic darkroom retreating are eligible for my future network, through which I can refer clients to you. Write me for more info.

~/~

It may take a few generations of healthy living to fully restore our health and realize our potential as human beings. But we can make huge strides in our lifetimes, getting most of the way back.

We have examined different formats of the restful use of darkness for different circumstances and purposes. Let's look ahead to more of what happens in a retreat and exactly how to conduct it.

5 - protocol

How to be and what to do once in darkness is simple. It's a lot like having a guest. Provide what is necessary for function and comfort, then stay out of the way.

As with the rest of hygiene, the practice of darkroom retreating consistently follows the theory. In hygiene, our purpose is to serve life. Life's needs are our priorities. This makes our task in darkness simple and clear: maintain the conditions of rest. This leaves the autonomic self free to return the whole being to health and function as quickly as possible. The autonomic self does most of the work, all the complicated parts, and indicates to the volitional self how to help.

Darkroom retreating is nothing less than recovery of the lost self. In darkness, you will begin to reunite with yourself, as if a peg-legged sailor awoke one day to find his leg starting to grow back. The more that happens, the more you become your own guide. This chapter helps you navigate your first retreats and remains as a map.

Hygienic darkroom retreating is new, and I am new at it. The final authority in hygiene is life itself. Consider these notes from the field and an invitation to explore an idea whose time has come.

mechanics

logistics

I describe the overall process of retreating in [format](#), especially the 4-day and 8-day retreat sections. Here are the details.

- food
 - the day your retreat begins, eat the same way you will in darkness: just fruit and greens or as simply as you can

- finish eating for the day by 18:00
- retreating
 - in your bedroom:
 - * neutralize it: cover or store everything unnecessary to the retreat
 - * clean it thoroughly
 - * pad sharp corners and protrusions
 - at a center
 - * arrive at 18:00
 - * your supporter will:
 - show you to your room, pointing out where food will be delivered and any special features
 - find out particular things you need
 - talk to you a little bit about the retreat, reiterating the basic ideas of rest and self-healing
 - * as you unpack and settle in, memorize the room. Close your eyes and practice moving around and finding things
- set two alarms on a cellphone
 - between 10:00 and 12:00 the first day you will uncover the windows. On transition days, you can open the room before noon, as early as 06:00, as long as you feel fully rested.
 - between 06:00 and 12:00 the morning your retreat will end, depending on your schedule.
 - turn cellphone off or put it in flight mode to stop calls and minimize electromagnetic radiation
- lights out
 - how to do everything in a totally dark room: slowly!
 - *Important*: when bending down or rising, hold your hands together, out in front of yourself at chest height so you don't hit your head. Practice this a few times in light with eyes closed, near something you will touch with your hands
 - put food scraps in bucket provided inside the room
 - things slowly go out of place in darkness. If you would like the bed remade, lost shoes found, etc, just let your supporter know.

- If you discover a light leak, immediately look away and get something to cover it with. See [prepare > bring](#) for materials to do this with. Let your supporter know so leak can be plugged.
- Use scratch paper and pen to write notes to your supporter. Put them in the agreed-upon spot for messages.
- Avoid all media during your retreat: text, music, photos, video.
- Avoid all company as well: family, friends, etc, unless
 - * you are a parent and your child needs to be with you
 - * perhaps if your retreat is longer than two weeks (I don't know yet)
- transition day(s)
 - take walks, lie in the sun on the grass, go barefoot,
 - take naps, re-covering windows if you like
 - maintain solitude
 - write about your retreat
 - cover windows again between 18:00 and 20:00
 - maintain darkness until morning
- last morning
 - finish writing about your retreat
 - pack and exit room by 13:00

water and exercise

I make sure I do two things in darkness:

- drink water: the body uses water for virtually all its processes. Detection of dehydration is strangely harder in darkness. Each day, drink about 1 liter for every 20 kg you weigh. Get enough bottles to hold that much. Keep them by your bed. Fill and drink them down every day. Simple.

With all its extra energy, the body is reopening old wounds. It needs water to repair, clean, and revive these tissues. It is shaking toxins loose and needs water to wash them out. It soaks the nerves in water to keep them cool. This makes time in darkness emotionally smoother.

- exercise: exercise helps one get to sleep, avoid bed soreness, feel less restless and irritable, retard muscle atrophy, and, interestingly, maintain the psychophysical “space” in which healing occurs. Even three minutes a day makes the difference between a pleasant retreat and constant discomfort. After the first couple days, I find I want to exercise more and more. It becomes a game: how many pushups can I do? I have rarely felt such motivation as an adult. It came as a very pleasant surprise.

food

Eat meals rather than snacks. When you are hungry, focus on eating until you feel full and satisfied. The human alimentary tract processes food in batches, not continuously. A constant stream of food (often eaten in boredom) disrupts and distresses digestion, thus sleep, attention, and healing.

You will probably need 25-50% less food, by calories, than usual. I recommend keeping it to fresh, raw, ripe fruit and leafy greens to maximize nutrition, elimination, and psychic agility. Keep food in a cooler with a block of ice. Eat as much as you like. It is likely that your appetite will be diminished due to extra [melatonin](#) in the blood (a reason we do not get hungry when we sleep). This was especially noticeable in my first retreat.

As much as 10% of your food, by mass, can be tender leafy greens like leaf lettuce (not iceberg) and baby spinach. Celery, too. This is the equivalent of 1 large head or bunch of greens per day total.

A minimum of 90% of your food, by mass, should be seeded fruit, sweet and non-sweet (like tomatoes, bell peppers, cucumbers). So salads can be sweet (greens mixed with sweet fruit) and savory (greens mixed with non-sweet fruit).

Our need for fat is tiny and easily met with the above food types. Fat is very complex and difficult to digest. Too much interferes with resting and healing. So eliminate oils and minimize fatty foods. Forego nuts and seeds altogether. One small to medium avocado during a 4-day retreat in a savory salad is very pleasant.

Most of what you consume in fruit and leafy greens is water.

So you must eat 3-5 times more volume for the same sense of fullness and satisfaction. Eating this much, like 5 apples instead of one or half a watermelon instead of a slice, can take getting used to. Practice it before the retreat.

For more about food, see:

- [darkroom retreat > food](#) and [prepare > menu](#)
- [The 80/10/10 Diet](#) by Dr Douglas Graham
- [Loren Lockman's videos](#).

fasting

I strongly believe in fasting. It is a cornerstone of hygiene. But I believe in keeping these two processes separate until regaining significant capacity. They seem to have opposite metabolic requirements. At first, healing in darkness is more psychical in nature, in fasting more physical. The activity of one supports the inactivity and resting of the other.

I have tried both at the same time and it is very good but intense. I look forward to more, but for now, I am taking one at a time. I recommend the same to you till you receive a strong clear signal from your organism. I recommend Shelton's books on it, *Fasting Can Save Your Life* and *The Science and Fine Art of Fasting* and

Albert Mosseri's [Fasting: Nature's Best Remedy](#).

conservation

Here are ways to conserve energy for healing:

- talk only if necessary. Chatting drains energy.
- learn to write in darkness so you can communicate with a supporter and take notes on your experience. Use a notebook. Turn the page after writing or whenever you are in doubt about having turned it. Use your non-writing hand to cover the last line and guide your pen.
- for a more concentrated experience, do a silent retreat
- if you usually talk to yourself, catch yourself and stop
- at first, my clients and I felt like leaving the facility quickly upon exiting the darkroom and throwing

ourselves back into ordinary life. This was due to an unaccustomed increase in energy level and well-being. We had a sharpened sense of anticipation about our lives, feeling more in our bodies and ready to conquer the world. But rather than immediately re-enter regular life and probably end up blowing off this extra energy, it is better to recirculate it, absorb it, stabilize it.

So now the retreat continues after darkness with windows uncovered and doors opened during the day one day for every 2-3 darkened days. This gives time to re-orient to light and gravity. Take a walk, lie in the grass, look at nature, and reflect on what has happened. See [format](#) and, in my blog, [post-retreat protocol](#) for more about this.

support

My ideas of support have evolved since my first retreat. Once a day, Finn brought me food and talked to me a few minutes. I, then my clients generally liked having such active support for our first retreats. We found it reassuring to say a few words to someone each day.

For my first clients, I did more of each, sometimes too much. I thought of myself as a facilitator. Then a client wanted to retreat in silence. He communicated with notes and clapping in response to my questions. One clap meant no; two, yes; three, repeat the question. His retreat was up to him and he knew it. He just wanted practical support and the passive psychic support of my simply being around.

I liked this a lot. It eased my worries and helped me trust in life more. Rather than a facilitator, I started thinking of myself as a supporter. I later tried retreating without support and much preferred the solitude and lack of interruption.

However, that was only a 4-day retreat, and I was in a small, remote village of friends. For 8-day retreats, I have found that having someone nearby, on call, is critical. A retreatant is in a kind of womb. Supporters are like parents. They go about their regular lives, but remain available and create constant psychic shielding for the retreatant. Weird forces exist in the world. We need to rest from them, too. A little team of supporters makes this possible.

A retreatant can get a supporter's attention from inside the darkroom with notes, an operable flag, knocking, or a bell at the end of a cord. A fully charged cellphone or walkie-talkie works in case of emergency.

Here are the attributes of good support:

- supporter's duties and qualifications:
 - has read this book, understanding the basic ideas of hygiene; expertise is not required
 - has retreated or will soon. No neutral or tacitly negative supporters!
 - is reliable; and has a modicum of common sense
 - brings food and checks for notes or says hello according to an agreed schedule (noon works well). Saying hello can happen once a day, once in the middle of the retreat, or not at all
 - stays nearby and keeps the retreatant in the back of his mind while going about daily life.
 - has back-up support, at least one other person.
- design
 - a supporter can deliver food and talk to the retreatant in a normal voice without opening the darkroom's door
 - a supporter can enter the darkroom without letting in light. Or, the retreatant covers her eyes till the door is shut again
 - a retreatant can call the supporter without leaving the room or being exposed to light
 - see [design](#) and [make](#) chapters for ways to do these

attitude

Besides a darkroom, food, and support, a hygienic retreat requires a fourth critical ingredient: knowledge of the hygienic attitude. You don't have to believe it. Just take it in with you to consider, test, and use when the opportunity arises. It is not something to impose on yourself, to make yourself do, but to recognize in the moment and respond to. It's a chance to let

go and let life catch you. In some way, you already know how to do this. These words can help you feel more confident about it.

purpose

- The purpose of a darkroom retreat is to rest deeply. This enables the organism, especially the psyche, to heal itself of the major psychophysical trauma sustained in civilization that causes all suffering, including physical disease.
- Your principal task is to sleep. Benefits of the deep sleep possible in darkness compound each day. Deep sleep enables the organism to accumulate tremendous vital energy. This energy is necessary to heal deep psychophysical injuries that lie way beyond the reach of will, surgery, or practice.
- Consider any spiritual, personal developmental, or therapeutic purpose to which you might put this retreat as part of what you are retreating from. Really: feel free to let it all go in here. Whatever is valid will happen by itself, much better than you imagined it would. If somehow you can't let it go, it's ok. Sometimes the ability to let go must be recovered, too, as well as confidence in the autonomic self to handle what you let go of.
- Likewise, the autonomic functions of the organism will deal with most of what we often regard as our moral responsibilities. Darkroom retreating is not primarily an active process (like spiritual practice). It is primarily a passive process as regards the will, requiring minimal effort on your part. It is like waiting in a hospital bed to heal.

Thus, you do not need to make yourself meditate, pray, chant, introspect, think hard, figure out your life, etc. Neither stop yourself from any of these *if you feel moved to do so*. Yes, you actually get to consider your feelings, impulses, thoughts, and needs in darkness. Everything in your being plays a part in life. Anything could be an important cue. Every movement of the organism ultimately

has health as its aim. Listen, wait, receive.

- It is quite possible to have a goal for a retreat and make progress with it. I did this several times. But now I know it was out of lack of confidence in my autonomic self. My aims were security objects. This kind of purposefulness interferes with the organism's priorities, which cannot be improved upon. Life always knows what is actually most important, millisecond by millisecond. My [most effective retreat](#) happened when I felt sure it would not work and I gave up on any aim I might have had. I only continued out of sheer logic: my own arguments still seemed airtight and unavoidable, so I stuck with the plan. Then I witnessed a marvel of self-healing.
- This process is as foolproof as possible. Given the conditions of rest—most of which are built into the room itself—you will heal.
- The organism is the principal actor. Your job is to support its self-healing process through stillness and conserving energy, including the energy expended by attention. (More about attention later.)

expectations

- You will get a distinct break from your regular life. It's best to consider anything more a bonus. While I and some others I supported have experienced amazing occurrences in darkness, I cannot guarantee you will experience them.
- Your results are up to your whole self, 99.99% of which operates below the level of conscious awareness, beyond your direct control.

I do guarantee that your being will do exactly what is most necessary and not require more of you than you can handle. Perfect, complete knowledge of everything about you and absolute power to act on this knowledge are the autonomic self's great gifts for you.

- As when wandering the streets of a foreign city, keep your wits about you. Neither your supporter nor your autonomic self will relieve you of the normal task of

watching over your own life. You remain responsible for yourself.

- If nothing happens, conditions were not met sufficiently. Analyze the points of failure and try again. Several of my early retreats failed because of light leaks, poor air quality, noise, a bad bed, time shortage, and other stressors. While darkness is natural, one still has to learn to arrange and use it. I'm still learning.

attention

What do you do in a retreat?

As I've said many times, you rest. But how, exactly? Half the day, you're lying around awake with nothing to do.

The answer has to do with attention. While the autonomic self heals, the volitional self focuses attention. We have no choice about having attention. We sort of have a choice about where to focus it.

I say sort of because this power varies with capacity. This takes time to recover. Meanwhile, sometimes attention wanders like an untethered goat. Sometimes it dashes off madly. Sometimes it gently returns seeking direction.

Attention is different than the mind. Attention can be on the mind: its actions, thoughts, and memories. It can also be on feeling, sensation, and movement.

Don't fight the goat of attention. It is an injured animal that must remain free. Direct it when possible. When it wanders, you track and observe it a little while, then direct it. When it dashes, you hang on for dear life or, in critical moments, take it firmly in hand and direct it. When it returns, you direct it. You direct it because your purpose is to rest and certain objects of attention are more restful than others. You direct it when you can, as your capacity to do so returns.

I know three places and ways to restfully direct attention:

1. mentally on thoughts, above and behind the head, a couple minutes at a time
2. visually on darkness, in front of the eyes, for 5-10 minutes at a time

3. palpably and audibly on bodily rhythms, for hours at a time:

- on breathing, in the belly
- on the pulse, anywhere and eventually in the heart
- on swallowing
- on blinking

These are all good places for attention. It just depends on what *resting* requires in any given moment. For example, avoiding thinking about something that demands it in the moment will be agitating, not restful. Remember the purpose of rest, and you will learn when and where to move your attention.

Conscious placement of attention on the self, on some aspect of consciousness is usually called meditation. (Gurdjieff, in his usual precision, called it self-remembrance). Thus dark-room retreating sounds like meditation to many people. Meditation is usually a discipline. This is true only when time is set aside just for it, when it is the main process. The moment this effort stops, so does the main process.

In darkness, meditation serves the retreat. One retreats not for meditation but rest. Healing is the main process. Meditation can help sometimes, but healing goes on anyway because it is an autonomic process running in the background of willed activity. Further, a retreat provides so many conditions of rest and so little to do, one tends to rest more.

- Thinking is sometimes critically important. When you have presence of mind and a pressing issue arises, think it through logically, steadily making rational connections until resolving it. This doesn't happen much or take long, and we all know how thinking too much can drive a person crazy. Fortunately, thinking is not the only option.
- You can also look directly at darkness itself, making it an object of attention. We are usually taught to think of darkness as nothing or as a background for something lit. Focusing on darkness for awhile as an external fact, eyes open or closed, helps calm the mind. It can be unexpectedly absorbing.

Try it right now for a minute or two. Put your palms over your eyes. Slightly overlap them above the nose to seal out light. Look at the backs of your eyelids like you are looking a couple meters away. Do this for a few minutes. Shapes and colors and spots might move around for awhile, then slowly clear away. Focus on the slowest dark patches, sometimes in front of, sometimes behind the imagery. You are withdrawing all your senses back inside your head.

You can also do this in the middle of a regular day to rapidly collect yourself, to feel centered and in your body again. It is restful for the eyes. It is actually an old practice from hygiene called “palming”.

I used to do it for hours, even days. This was way too much. You can read the trouble I got into for this in my [6-day retreat](#). Increasingly clear images of a subjective nature play on the “screen” of darkness. In other words, the images are coming from the mind. At first, I found this fascinating. Then it became torturous and nightmarish. At first, it seemed meaningless. Now I think it reflects what is repressed or denied in oneself. But this is nothing to indulge or dismiss. The unconscious will tell us what we need to know of it.

In a retreat, focus on darkness like this for just 5-10 minutes, concentrating on it a moment to steady yourself. Then...

- Move attention into your gut to feel the movement of breathing. This is always safe, a shelter from the storm sometimes raging in the mind. I can calmly hang out there for hours while lying down, palpating the motion of breathing. Just the in-and-out of my belly where natural breathing occurs (not in the chest).
- Then put attention on the pulse, sometimes feeling for it in the heart. From sensation to feeling is not very far. I heard from [Arnaud Desjardins](#), a great master of Advaita, that eventually, one can put attention in the heart as pure feeling.
- Swallowing and blinking provide further variety to the show. The tongue normally rests against the roof of the

mouth. Of course, if you are congested and must breathe through your mouth, this is impossible.

- Many have reported occasionally seeing unusual lights and images. These have a highly real, objective quality. It is bracing, awesome, compelling. Vaulted ceilings often figure into this scenery, sometimes low, dark, and grey or brown; sometimes high, airy, lit, and colored. Some consider these hallucinations. Darkness impresses me as a waking portal to the dreamworld, also called [dreamtime](#) or *timespace*.

experience

Resting in darkness affects the foundations of life, for example, time, sex, and power. Here are preliminary observations from my retreats and a few others I've heard.

time

Many of us in darkness have experienced a strange compulsion to know what time it is. It feels like an addictive craving, even mild panic, though obviously absurd. Darkness gives the best possible opportunity to withdraw from it by avoiding finding out.

I often feel late, short on time, rushed. Yet, at the end of a retreat, in which days passed without accomplishing regular tasks, I always feel luxuriously ahead of schedule. So I view the feeling of being late as a symptom of exhaustion and asynchrony: time disorientation. It is exactly like anemics whose blood iron levels normalize during a fast. Why? It's not a deficiency but an absorption problem.

The civilized sense of time is very close to the heart of our psychosis. The indigenous report a very different experience of time. They feel *in* time, on time, in synchrony with the flow of events. Where we mostly measure time cardinally, with specific dates and hours, they measure it ordinally: before, after, earlier, later.

In darkness, you may feel a shift from the strange relationship with time we consider so normal.

sex

One way or another, sexuality makes its presence known in darkness. If it has been repressed, it stirs, like an animal escaping captivity. If it has run wild, it calms down.

Sexuality lies close to the base of organic existence and its power. We all come from sex, we renew ourselves in it throughout life, and we make more life with it. We exude it in everything we do through the gender polarities of masculinity and femininity. It expresses one's self-esteem and confidence. Sexuality amplifies life's colossal power. Thus civilization's centralizers of power, the state and religion, whether sacred or secular, rabidly suppress sexuality. Violence and the need for artificial controls result.

Over several retreats, and one in particular, I felt my sexuality begin to return to me. Shut out for a long time, it finally found a way back in. An unfamiliar feeling of self-satisfaction accompanied it, taking a place next to my accustomed longing. I have related more of the initial, liberating effects of retreating on my sexuality in my [reports](#) online.

Before his retreat, one of my clients tried to lure his giggling girlfriend into darkness for "conjugal visits". This was funny. But I recommend hanging in there alone. In darkness, this secret joy is just for the retreatant. The point is to recover sexual power. Sexually powerful people have what they need. They don't seek it from others.

Traumatized sexuality relates directly to feelings of shame, fear, and guilt; and to rebelliousness and one's sense of purpose. The healing of sexuality leads to recovery of self-esteem and feelings of security and confidence. Darkness will definitely help many people heal from the nightmare of repression and violence that has beset our lifeway for thousands of years. Soon, I hope, an end will come to this madness once and for all.

power

As an organism, one has a basic power: to live. It enables one to survive, to take shelter, find water and food, handle emergencies, defend oneself, maintain one's place in the

world, and provide for others. Power is an ability and the energy to exercise it. It combines the concepts of capacity and vitality.

Power manifests in every movement, thought, and feeling. Fitness, magnetism, relaxedness, and humor all signify the power to live. Money represents it externally. A powerful person controls his own life in ordinary ways and adapts easily to circumstance. Peace, freedom, prosperity, and joy characterize powerful people and societies alike.

Everyone alive has power to some degree. Those without it are dead. While it has immediate social effects, it is primarily personal. It is not power over others. Real power grows from within, not out of the barrel of a gun.

Like any capacity, trauma significantly damages personal power. The routine brutality of civilization pushes people to the brink of powerlessness. Power becomes the motive of nearly all activity. Power turns to aggression. A drama unfolds. Some people become control freaks, power-lusters, and abusers. Others become perennial victims or rescuers. Roles suddenly reverse. Fear, violence, and evil touch everyone. War, repression, poverty, slavery, epidemics, and corruption all signify a collective lack of power.

At profound rest in darkness, power is restored. These symptoms of mass psychopathology disappear. One begins to feel and act virtuously without trying or even thinking of it. Life works again on a personal scale.

On a social scale, such power is irresistible by conventional force. Martin Luther King, Jr and Mohandas Gandhi showed this. From their words and my glimpses in darkness, their demonstrations pale before the potential of a fully restored human being. Our distressed world, kings and peasants alike, awaits such people. Once the dam breaks, 10,000 years of suffering will wash away overnight. This is what I saw. This is my prayer.

difficulty

An uncomfortable period usually occurs somewhere in the middle of the retreat, lasting minutes to hours. It's like a bout

of pain while convalescing in a hospital. But now it is the soul that heals. What to do?

discomfort

You might feel tense, like crawling in your skin. You might curl up and cry. It's perfectly natural. You have provided the organism a chance to work something out, and it is doing so. Let it happen.

If discomfort feels like too much to be endured, examine your basic conditions like a hygienist:

- are you safe?
- are you drinking enough water and exercising enough?
Both these can instantly ease discomfort. Maximums: 4L water and 2 hours exercise per day
- do you have enough fresh air and warmth?
- is it quiet enough? Are any noises bothering you?
- is your bed comfortable?
- is it totally dark?
- has food been good?
- do you need to pee, poop, or bathe?
- is anything else not working?
- do you need a few words with your supporter?
- is there something about the process you feel you are missing or don't understand? Perhaps your supporter can help you figure it out.

If the process is still too fast or intense for you:

- use sensation as a brake on the process
 - talk or sing to yourself or play an instrument
 - turn on a faint red LED light
 - if you still can't stand it, use natural light as a last resort. Slowly uncover the window or open the door as much and long as needed. Start with eyes closed and turned away from the light. Open your eyes, but do not look into the light directly. If this is insufficient, step outside. When you feel calm again, go back into darkness again.

- see more techniques in the phobia section below

Sometimes, waiting it out works. Just enduring. Hanging on. In some case, retreating can feel unbearably difficult. It is perfectly alright to not resume the retreat at this time. Darkness is natural, but reacquaintance can take time and must not be rushed. Perhaps reflection on your experience will show why you could not proceed. Perhaps something unexpected will change and you can try again later. Perhaps something else is more important for your life now. There is no rush.

Sometimes something is not quite right with the retreat or the darkroom, and I cannot figure it out till after I quit. This is frustrating, but there will be more retreats.

phobias

Those with phobias related to darkness (eg, superstition, claustrophobia, fear of the dark) can still retreat using these techniques:

- red light: Keep a red LED light next to your bed (pure red light gives no signal to the pineal gland to wake you up). If anxiety or panic become too great, turn on the light for a minute. This is a last resort. Don't do this regularly.
- microretreat: retreat for five seconds. Then take a break in red light till you feel ready for the next microretreat. Gradually increase the length of the micro-retreats and decrease the breaks. Do this for 15 minutes. The next night, go 30 minutes, etc.
- companion: retreat with another person inside or near the darkroom till you feel ok alone
- reason: go over the facts of your situation in your mind. What evidence do you have for what you fear? You can learn to recognize and dismiss arbitrary (baseless) ideas.*

I had a client from a superstitious culture who was raised to fear the dark. But the idea of resting in darkness appealed to her common sense. She stayed in darkness for a whole night for the first time in her life at my darkroom. Afterward,

she said that when her fear of monsters or ghosts came, she simply reasoned her way through it.

She remembered closing and locking the door, then checking under the bed and table and finding nothing before blowing out the candle. The door had not opened since then, so nothing could have gotten in. She deduced there could be no threat. She calmed down and went back to sleep. That night, her fantastic fear yielded to reason four times.

When she awoke in the morning, she felt ecstatic from staying all night in absolute darkness and overcoming her fear of it. Her rationality strengthened, and she used it to strengthen her relationship to reality and her feeling of safety. Allied with her autonomic self, the tide gently turned on her phobia.

In any case, try. If these methods fail, perhaps you will come up with your own in the moment of crisis. An idea will occur to you. You will feel something or have an impulse. Act on it. Darkroom retreating isn't all just lying around. These brief calls for heroism are part of the minimal effort the retreat requires of everyone at some point.

*I was raised with many superstitions. I found pp155-170 of *Objectivism: The Philosophy of Ayn Rand* by Leonard Peikoff extremely helpful in dealing with the conscious part of them. He explains how to identify *arbitrary* ideas: those for which there is no evidence. He explains the necessity of dismissing them.

severe psychosis

As I have said, I view our entire society and virtually everyone in it as psychotic. This includes me, you, our "leaders", the lady down the block, doctors, teachers, carpenters, garbage men. Everyone. We are functionally psychotic, merely surviving long enough in our dysfunction and pain to reproduce. We thus exist on a continuum of psychosis ranging from the temporarily shocked, to the functional, to the disabled, to the severely psychotic.

Merely this change in perspective from our current presumptions can aid the situation greatly. Lots of little ridiculous things we currently do can be exposed as such and stopped.

I have not worked with severe psychotics—who would be identified simply as psychotic by conventional psychology. But I think that we can handle even these cases by ourselves. By this, I mean without the use of professionals or experts, just with the care of friends and family. That said, if an expert can behave normally, simply providing wisdom and care unobtrusively like anyone else would, without any sense of superiority, that's great. Some experts actually know something. There's no reason for their knowledge to go to waste unless it would do more harm than good on balance.

I think severely psychotic people will be most helped at first by the presence and love of others who have recovered their own sanity in darkness. Severely psychotic people are especially sensitive to our society's constant barrage of stupidity and hatred, especially from those who are supposed to care about them. If that reverses, most cases of severe psychosis will disappear in weeks. Let us first put our attention on ourselves. It's sort of like using an oxygen mask in an airplane: use it yourself first, then on those in your care. To continue the metaphor, please consider the plane we're on to be already depressurized, undergoing severe turbulence, and with its masks dangling down. Maybe

But I can imagine the direct use of darkness in extreme cases to excellent effect. It must be done with great care and attention to conditions, and with understanding and consent. Darkness causes great harm in those it is forced upon, and I unqualifiedly condemn this cruel and despotic use of darkness. I believe it will often require more gradual application and more support.

Begin by removing any light the person has not asked for or replacing it with red light if he finds it agreeable. The more access the person has to reason and the more he trusts his caregivers, the easier it will be to normalize his sleeping environment. Scheduling pressure can be removed. I mean all those therapeutic activities that are supposed to help people but just distress them or help them pass the time while on debilitating medication. Allow the person to sleep more. Provide more fresh, raw fruits and leafy green vegetables, fresh air, sunlight, pure non-fluoridated water, contact with plants and earth, grounding sheets, etc.

Lots of little changes like this can quickly de-escalate severe psychosis to mere disabled psychosis or even functional psychosis. From there, a person could manage the rest of the way to sanity with ordinary levels of support.

aftermath

post-retreat

The effects of a retreat continue afterward, sometimes with an intensity greater than the retreat's. It can feel like a storm sometimes. So I call it the aftermath. This is another phase of exploration, metamorphosis, and insight. It can last from a few days to several weeks. The transition days of a retreat reduce its length and intensity to tolerable levels.

CAUTION

Do not attempt a retreat without transition days, no matter how desperate and short on time you may be. See [format > warning](#) for more.

For about a week after your retreat, plan only usual things: job, school, family. This most quickly returns you to functional stability, minimizes exposure to disturbance, and maximizes your chance of absorbing the value of the retreat. Avoid traveling or big new things. Stay in when you might go out. The party will still be there in a week. Be subdued. Keep to yourself. Whose life is it anyway?

How the aftermath goes depends on one's personality. I'm not the stablest oil rig in the Gulf, so it fairly tosses me around. It usually begins with a calm, solid feeling of deep restedness from the retreat. Then a tension builds to a crisis over a few days. I can feel as bad as the worst moments of my retreat. Then an insight or discovery comes that shows the way to the next period of my life.

This insight is often accompanied by the return of will and focus. Suddenly, I know exactly what to do, how to do it, and have the energy and strength to make it happen. It's very fun, especially after months of listlessness.

I know less about this part of my clients' retreats than the dark part. From what I saw and heard, their aftermaths varied greatly in character. Sometimes they matched the drama of mine, sometimes they were smooth sailing. Remember where you just were and keep your eyes peeled.

recapacitation

Regarding some aspects of our own lives, we all know better. I mean things we think we should do for ourselves which, strangely, we do not. Moralism says it is because we will not. Hygiene says it is because we cannot. Stop a moment and consider the relief this idea brings.

Darkroom retreating provides the conditions in which the organism restores one's capacity for both self-care and its benefits. This is recapacitation. The intensity of a retreat mostly fades, but restored capacity remains. A broken leg, once healed, doesn't spontaneously become broken again.

The full application of the [idea](#) behind hygienic darkroom retreating consists of

**doing retreats of increasing length
alternated with periods of radical change in
lifeway
until health is fully restored.**

"Health through healthful living," as we hygienists like to say.

You already know some changes you would like to make. Now you can make some of them. Those you do not know, you will, in darkness, become capable of discovering, learning, and applying. Resources and opportunities that were right under your nose, on the tip of your tongue, out of the corner of your eye suddenly become visible, compelling, accessible. Having restored a lost part of yourself, *how* you are changes. You notice and attract different things. Once you see you can walk through the front door of a bakery and get whatever you like, you will stop begging crumbs out its back door.

~/~

I have tried to impress upon you the idea that you are not the main actor in darkness. But, of course, a part of you is. We are taught to belittle, deny, and disown it: the autonomic self. In darkness, we cease to identify so closely with the conscious. It emerges as the servant of the unconscious. The conventional relationship is corrected. We have mistakenly tried to harness life's unfailing virtues to the desperate agenda of a crippled will, which we view as our sole identity.

In ordinary life, you must arrange certain conditions to live. You must keep your wits about you. You are accountable for your own experience. These basic facts not only persist in the darkroom, they become especially clear. In darkness, it is your job to maintain certain conditions of the retreat.

Your non-expert, non-mind-reading, non-therapist supporter will be on the outside helping you do that. He will be maintaining the darkroom, bringing food, perhaps finding your lost shoes. Like any decent person would, he will talk to you for a few minutes if you need. It's your retreat. If something is not working, say so.

On your last transition day, write a description of what happened while it is fresh in your memory. Finalize it later with insights from your aftermath. Share it online if you like and send me a link. I have found these reports useful in improving darkrooms, understanding the process, and explaining it to people. More writers and readers of reports will help spread hygienic darkroom retreating, advancing its theory and practice.

6 - prepare

The following registration form, menu, and list of things to bring help one prepare for a retreat. Whether retreating at home or at a center, I suggest you read it and fill out the questionnaire to help you prepare mentally for the retreat. Likewise, give it to those whose retreats you support.

register

Follow instructions carefully.

general

1. Finish reading this book. Quiz later.
2. Select dates for your retreat from the calendar below. Retreats begin at 18:00 and end at 12:00 four or eight mornings later. For example, a 4-day retreat that begins on Monday evening would end on Friday morning.
3. Respond by *email* to the questionnaire below. Responses of one or two sentences per question are sufficient.
4. Send deposit by cryptocurrency, PayPal, credit card, or inquire for other methods
5. Bring things listed below

terms

This set of terms is one example.

- Price: (European example)€40 + €80/day (eg, 4-day retreat=€360)
 - charge 20% more than you might
 - the people who can pay, will
 - negotiate with the rest. Subsidize worthy people with little money. Find out what they are good at and have them do something for you.

- Discounts:
 - Local, student, or friend: 20%
 - Local and student or friend: 40%
 - Offers of 40% + remainder in trade gladly considered
 - No one serious turned away for lack of funds
- Reserve dates with a 50% deposit. Balance due on arrival.
- Cancellation fees (% of *total* price):
 - 5% 30+ days before retreat
 - 25% (half the deposit) 7+ days before retreat
 - 5-10% if someone else can take your spot

Other terms are possible. The Vipassana model is interesting, too. Post a detailed ledger showing your costs. Let people donate what they will.

[placeholder for google calendar]

questionnaire

1. Name:
2. Email address:
3. Phone:
4. Address:
5. Age:
6. Emergency contact name, email, and phone:
7. Retreat length: ___ days
8. Retreat starting date _____ +/- ___ days (for absolute date, put 0)
alternate: _____ +/- ___ days
9. How did you first hear about darkroom retreating?
10. How did you first hear about this darkroom?
11. Why would you like to retreat?
12. What will you be doing the week after the retreat? (It should not be especially exhausting or intense for you)

13. How does the menu sound to you?
14. Would you like to maintain silence during your retreat?
15. Quiz:
 - a. What is the hygienic purpose of retreating?
 - b. What heals you in darkness? c. What does this imply about what to do with your will and attention?
 - c. Where is a good place to put your attention most of the time?
 - d. How much does the air you breathe weigh compared to the food you eat, and what does that imply about the importance of continuous fresh air?
 - e. How much does a silent location matter for a successful retreat?
 - f. If a retreat becomes overwhelming, what are 4 things you can do to lower its intensity?
16. What fears or concerns do you have that might interfere with your retreat? (fear of the dark, claustrophobia, superstition, etc)? How will you handle them? What support might you need?
17. Assuming I am correct that practically everyone is psychotic, how do you feel darkness might significantly affect you, for better or worse?
18. Is there anything else you would like to add?

menu

summary

- 3L pure water per day
- frugivorous menu
 - fruit: whole, raw, ripe, in season, well-washed, ample for eating anytime
 - tender leafy greens: romaine, escarole, young spinach; also celery
 - green salad: sweet or savory, large, properly combined, served at midday or evening

- treats: 1 smoothie per 4 days, 1/2 avocado or 15 olives per 2 days in salads
- no: ferments (eg, vinegar, saurkraut, kim chee, cheese), onions, garlic, ginger, spices, salt, juice, oil, dried food, nuts or seeds

guide

Most of the time, just eat plain fruit:

- eat one fruit until you lose your taste for it
- if still hungry, switch to another
- start with the most watery (melons) foods, end with the least (bananas, dates)
- eat greens anytime

Some days, have a yummy recipe:

- sweet green salads (midday or evenings)
 - melon
 - * 1 head romaine, chopped
 - * 2 L watermelon, chopped (only combine one kind of melon with one green, otherwise stomach ache)
 - banana
 - * 1/2 head romaine, chopped
 - * 3 ribs celery, finely chopped
 - * 4 bananas, ripe
 - * 1 L strawberries or blueberries or chopped nectarines
 - citrus
 - * 1 head romaine, chopped
 - * 5 sprigs parsley
 - * 3 oranges, peeled, sectioned, cut in half
 - * 2 apples, chopped
 - * 2 slices pineapple, chopped
- savory salads (evenings)
 - tomato
 - * 1 head romaine, chopped

- * 3 ribs celery, finely chopped
- * 1dL rocket lettuce
- * 1 orange, chopped very finely (into pulp)
- * 5dL tomato, chopped
- * 1/2 avocado or 1dL olives

- dry

- * 1 head romaine, chopped
- * 10 sprigs parsley or cilantro
- * 1 orange, chopped very finely
- * 2 red bell pepper, chopped finely
- * 2dL mushrooms OR zucchini, chopped

Come up with your own based on above patterns. No more than 6 ingredients per recipe. The trick with savory salads (and all combined food, really) is to include these 8 flavors and textures in varying proportions in each dish:

bitter, sweet, sour, salty, savory, spicy, crunchy, fatty

- bitter: tender greens like romaine and young spinach, mild culinary herbs like parsley, cilantro, and celery
- sweet: fruit!
- sour: orange, grapefruit, pineapple, berries
- salty: celery, tomatoes
- savory: tomatoes, olives (rinse off oil)
- spicy: just a hint, barely enough to notice. Spicy greens are best, like rocket, arugala, mustard, cilantro
- crunchy: celery, apple
- fatty
 - with sufficient chewing, oiliness of lettuce is usually enough
 - tricky because it is surprisingly easy to overeat fat
 - * eat only one kind of fatty food per day
 - * eat a small quantity once per 2-4 days: 1/2 avocado, 15 olives
 - * stick mostly to fatty fruits like avocado and olives (rinse off oil). Eat nuts or seeds only 1-2 times/-month
 - * eat 5-6% of your daily calories from fat, no more than 10%. Track your calories for a week at fitday.com. It's very surprising.

Just say no to:

- ferments, like vinegar (the second stage of fermentation beyond alcohol and even more toxic. It's a digestive disaster.)
- onions, garlic, ginger
- spices or salt
- fractured foods like juice, oil, dried food
- nuts, seeds

These imbalance, overload, or destroy digestive chemistry, bacteria, and enzymes. The good things you hear about vinegar, garlic, and ginger are hype.

If you would like to know more about this menu before trying it, see:

- [darkroom-retreat > food](#) and [protocol > food](#)
- Dr Douglas Graham's masterful [80/10/10 Diet](#)
- [Loren Lockman's videos](#)

If you somehow cannot eat this way, eat as simply and naturally as you know how. For suggestions, write me with your limitations.

bring

- Yes:
 - bedsheets and pillow (if retreating at a center and need these provided, let supporter know ahead of time)
 - pajamas and loose clothes
 - sweater
 - slippers
 - water bottles, 3-4L worth
 - clock (unlit analog or red LCD)
 - cellphone
 - red LED light
 - materials and tools for plugging any light leaks you discover during your retreat

- * black electrical tape, 1 roll
- * black polar fleece, 50cm x 20cm
- * scissors
- * table knife
- * bamboo skewer
- toiletries and personal items
- prescription medication
- Optional
 - special food (please tell supporter about it)
 - simple exercise equipment for body-weight exercise, eg, yoga mat or push-up handle bars. No free weights or elastic or bowed equipment.
- No:
 - cigarettes
 - electronic devices that make sound, light, vibration, or smell: computers, audio players, watches, clocks, vaporizers, oils, massage devices, etc
 - if you must bring any of these things, turn them off and store them during the retreat, maybe with your supporter. If critical for your health, then keep them with you.
 - contraband, psychedelics, alcohol: disallowed on the premises

part 3: darkroom

7 - design

Nature works. Occasionally, disaster strikes and chaos ensues. We must restore order. We need a plan. So we design.

normal

Hygiene uses only normal conditions. A darkroom is merely what all shelter should be: easily darkened. With the advent of street lamps and large unshuttered windows, darkening bedrooms has become critical to survival. Everyone's bedroom should be a darkroom, at least for nightly sleep. It is normal, just rare...for now.

How is total darkness normal for sleep and healing? The original human habitat is tropical forest, whose dense canopy makes the forest floor pitch black at night. While we can sleep in light if necessary, it compromises the quality of sleep. No biological adaptation to it has occurred, only [vital accommodation](#) (development of tolerance) at the expense of overall function.

We also have darkness at any time by covering eyes with hands. When traumatized, we do this reflexively along with seeking safety, shelter, and solitude. Construction is an intensified form of the sheltering instinct. It is activated by our still extreme internal condition.

The civilized obsession with building expresses the impulse to self-healing on a social scale. Knowing this, we can volunteer the activity. We can direct it explicitly toward its implicit goal: to provide the conditions of profound rest. We can define and meet its specifications.

start

Start in your own bedroom. You already know you can sleep there, what problems need mitigation, where things are

and how they work. You already paid for it. You need access to darkness every night anyway. It makes sense to begin darkening it.

If it is truly not worth darkening or unsuitable for short retreats, it is unsuitable for living. I strongly suggest you make arrangements to move.

If, for whatever reason, you wish to darken a room elsewhere, then sleep there three nights beforehand. See if anything about it might disturb you which you cannot practically change: noise, odors or poor ventilation, atmosphere. Mind your senses, feelings, and state of mind. Will you be comfortable there? Do you actually sleep? Will darkening and ventilating it be a reasonable effort? If so, proceed. If not, conserve your initiative and keep looking.

types

There are private and public darkrooms.

A private darkroom is built to basic specifications in your bedroom. It is for nightly use and short retreats up to 4 days. Basic specifications are: security, reasonable quietness, perfect darkness, ample ventilation, and comfort, plus any others in the list below that you can manage. See *basic* comments for clarification. For budget building tips, see [format](#) and the *make* chapters, [make](#), [air](#), [darkness](#), and [water](#), or write me after reading them.

A public dedicated darkroom is built to full specifications below in a small house in a quiet location. It is for all kinds of people for retreats of any length, short (up to 8 days), medium (up to two months), and long (up to a year). It requires all the specifications below. If it is your first darkroom, start with a fully functional house. This means it has automated heating, running hot water, mechanical ventilation, and electricity. Later, when you know more, you can build something new.

standards

Most of my retreats succeeded or failed because of how well the darkroom itself worked. Do not tolerate stale air, frequent or extended noise, light leaks, dangers, discomforts, poor food, etc. Poor conditions cause stress. If stress becomes distress, it ruins a retreat. So handle problems ahead of time rather than thinking you can endure them. Listen to your body and soul.

You should be able to turn off the light and let go of external concerns as much as materially possible. The stress of healing is enough to bear. A retreat is not an imposition. You naturally want to do it because you are rationally convinced it is good. It is not for disciplines or practices, but rest and recuperation. It is not effort, but relief; not penance or strife, but sanctuary from the punishment and strife of our lifeway.

A successful retreat depends on several factors including facility, attitude, preparation, protocol, and support. The facility is usually the biggest piece of the puzzle. Good design builds many conditions of success into the room, making retreats practically foolproof. The better the darkroom, the more effective your retreat will be. There is no penalty for doing things correctly.

But probably you cannot do everything correctly the first time. Certainly, you will do your best. You can improve upon it later. If we could already do everything correctly, we would have no need of darkrooms. Just be honest with yourself about whether your best is good enough for now. This is a real chance to decrease suffering. Don't cut corners if you can help it. This principle applies to everything in the list below.

A darkroom functions perfectly. It has a minimalist aesthetic for ease and safety in use. It is non-toxic. It is comfortable. Myself, I prefer economy in construction and operation. But the world likely needs 5-star darkrooms as well. If that is your inclination, go for it.

I welcome everyone's improvements to these specifications judged by the objective standards of reason, good (life-supporting) design, and hygiene.

facility

- exterior
 - secure
 - * safe location
 - * keys only with retreatant and supporter
 - * supporter on call 24/7 with cellphone, intercom, or bell
 - quiet
 - * on a low-traffic street
 - * away from running machines, particularly those producing a low-frequency hum and vibration. Specialized detection equipment and a lawsuit may be required to stop it. Standard silencing techniques cannot.
 - * sound-insulated to a normal degree
 - * silent machines inside (free of vibration and harmonics)
 - * short, occasional noise is ok
 - * *basic*: quiet enough for your comfort without earplugs
 - solitudinous
 - * separate, unoccupied building for dedicated darkrooms (see noise section below)
 - * small: 0-4 bedrooms, 12-70m²
 - * *basic*:
 - 6m² minimum
 - be alone in the apartment or house during retreat
 - electromagnetically neutral
 - * natural materials: earth, wood, stone; no metal structure
 - * grounded wiring
 - * single outlet where power enters room or building, opposite bed
 - * [earthing](#) bedsheet
 - * *basic*: unplug and turn off as much electricity in and around the room as possible at the breaker, switch, and appliance. For example, if a heater is

needed, turn off power to the darkroom and run an extension cord from another room. This gets power out of the walls and brings it into the room at only one point, away from the bed.

- interior
 - safe
 - * no padded or uncovered protrusions, sharp corners, or edges
 - * no low ceilings or doorways
 - * *for long retreats*: small and round (see roundness section below):
 - 3-6m inside diameter, 8-28m²
 - minimum wall height: 195cm
 - ceiling peak: 240+cm
 - dark
 - * perfectly dark: not a haze, glimmer, or pinprick of light anywhere
 - * easily darkened windows
 - * lightlock
 - lightproof double doors
 - enough space between them for a person and food deliveries
 - for communication, a lightproof vent in inner door, small and closable
 - * lightproof bag for cellphone. It can have a red window made of the translucent plastic used in stage lighting (“gels”)
 - * candles and lighter for before the retreat and transition days
 - * *basic*: perfectly dark bedroom, bathroom, and blindfold and mostly dark hallways and kitchen
 - well-ventilated
 - * fresh
 - it is unpolluted, possibly filtered/purified
 - no bad smells or toxic fumes inside the building from mold or modern building materials
 - * sufficient
 - fan maintains continuous airflow (passive systems require excessive engineering; intermittent ventilation is insufficient and causes mold)

- manually adjustable airflow, possibly with smart controls
- * silent: fan is dampened and silenced
- * *basic*: somehow, get plenty of fresh air into the room without cold drafts or too much noise; see [air > warmth](#)
- warm
 - * automatic heating from gas, oil, electricity, pellets, wood, etc
 - thermostat inside room
 - any fueling occurs outside room
 - non-electric if possible, otherwise, low-intensity, centralized, EM-shielded electric heat
 - * if possible
 - [Heat Recovery Ventilator](#), either with fiwihex core ([Fresh-R](#)) or Mitsubishi Lossnay core ([Renewaire](#)) (or other high-tech paper core). Fans require silencers and/or acoustic ducting.
 - building is super-insulated and sealed to Passive House standards to eliminate heating
 - * *basic*: somehow, be warm in and out of bed
- comfortable
 - * bed
 - size: double or long single
 - mattress: layers of new foam padding, flame-retardant free, of varying firmness for adjustable softness, aired out regularly
 - polyester/non-toxic mattress cover, long comforter, and pillow
 - 100% natural fiber bottom sheet and duvet
 - especially with a single bed, a mechanism to prevent loss of covers during sleep. A cord or elastic tied over them to the bed frame at the knee area works.
 - * sofa
 - * padded chair
 - * hammock
 - * inversion swing
 - * rugs
 - * hard, warm floor

- * dining table and chair
- * *basic*: at least a bed, rug, padded chair, and table
- bathroom
 - * regular bathroom
 - * or portable fixtures in [water](#) chapter:
 - composting toilet
 - shower
 - sink
 - greywater drainage
 - * *basic*: For 8-day retreats and longer, a darkened bathroom is necessary. En suite is best. Walking to it outside the darkroom is fine with a blindfold, dark clothes, and extra curtains on windows. Bathing is as important for emotional and intellectual reasons as physical ones. But for a 4-day retreat, a bathroom is not critical. Minimum requirements in primitive conditions are: bottled water (for both washing and drinking), a washcloth or sponge for a sponge bath, a towel, and a composting bucket toilet.
- cold food storage
 - * silent (unmotorized or isolated)
 - * unmotorized uses cold from the ground, block ice, ventilation, or electronic circuit
 - * *private*: cooler with block ice or blindfold to get to refrigerator in kitchen
- shelf for personal storage
- space for simple exercise

quiet

Silence is critical to retreating. I was in denial about this for years. It is even more difficult than ventilation. An unacceptable noise level is more common than air pollution and less controllable.

Regarding shared buildings: others inevitably make noise. Even if not, you will know someone is there, able to hear you. Like me, you may need to scream and cry in darkness. It's nobody's business. The process is strictly for oneself. A

darkroom minimizes the influence of others and consideration needed for and from them. This gives the autonomic self the maximum support to perform its awesome task. Contact with people during a retreat should be brief and intentional, not incidental.

A clear exception is if you are a parent of a child. The child can be with you in darkness as long as you both like. I have never facilitated such a retreat, but I definitely would. Nothing is more important to sanity, happiness, and avoidance of retraumatization of new generations than [filial attachment](#). If you find your capacity for attachment wanting, you will likely begin to recover it.

The weirdest thing that happened to me with regards to noise from other people was in an apartment building in [December 2011](#). I kept waking up exhausted from hundreds of short, meaningless dreams. After days of this, I realized in a fury that I was dreaming the mind chatter of others in the building. I stopped the retreat. I'm rarely "psychic"; this never happened to me before. But I am a canary in a coalmine. When something goes wrong, I notice.

Yet two years later, in December, 2013, I successfully retreated in another apartment building. I believe this was due to three factors: The building was fairly quiet. I was less fragile than before. And my sympathetic, wise, older host had a strong, benevolent presence and stayed in the apartment like a guardian while I retreated. I was very lucky.

As always, I had the darkroom to myself. I had tested my comfort in the apartment beforehand, finding I could sleep and dream easily enough. During my retreat, I could feel others' presence in the building, but their thoughts did not invade my dreams like before. I got the deep rest I needed. I would not have done a long retreat there, but the short one I did nearly saved my life. It bought me two more months of internal stability to work on this book. And it revealed a widely available setting for short retreats.

The worst noise comes from the relentless grinding of machines: stereos, traffic, ventilation and refrigeration equipment on buildings, and construction. It seems fine at first but soon becomes intolerable, like a drill to the skull. Fortunately, a [silencer](#) is amazingly effective at neutralizing external noise.

Then, the larger the building and the more electrical wiring and steel framing and reinforcement it has, the more it disturbs electromagnetically. Finally, there is high-frequency wireless radiation, that planet-size microwave oven we now live inside of. Fortunately, it exponentially decreases in intensity with distance from the source. At least you can turn off all wireless devices under your power. Long term, you can move or install shielding.

One can become so vulnerable in profound rest that the wrong setting can become harmful. Make sure you feel comfortable in a large or occupied building and confident you will be ok when retreating there. If the influence of the building undermines the restfulness of the retreat too much, stop the retreat and try again elsewhere. Make extra preparations to doubly protect yourself from distress on your transition days: no shopping, visitors, media, or travel. Following my weird retreat in 2011, I was not thinking straight. I moved to an even less restful location a day after exiting the darkroom. This proved even more harmful than the poor location. Post-retreat planning is critical. See [protocol > post-retreat](#).

round

Note: roundness is not important for short retreats. Plan a round darkroom for the future, both for shelter and for medium and long retreats.

An experiment: go into a round building and observe how you feel. Compare it to how you feel in square ones.

Born to designers and craftspeople, I've run this sort of experiment since childhood, using myself as my instrument. Here are my conclusions.

Round buildings feel sheltering. They shield occupants from subtle energy, physical and psychical. Energy flows around or through them because their roundness does not resist or trap it. Small round spaces feel cozy, not suffocating. One can easily relax inside. One has just what one needs.

Human consciousness expects roundness in its environment. Nature is a symphony of curves: circles, ellipses, parabolas, catenaries, spirals, cones, and spheres. Curvature arises

from and gives rise to innumerable straight-edged shapes at visible and microscopic scales: mostly triangles, pentagons, and hexagons; tetrahedrons, octahedrons, dodecahedrons and icosahedrons; and their stellations and combinations. As Buckminster Fuller demonstrated in his *Synergetics* (see [A Fuller Explanation](#)), nature's coordinate system is tetrahedral, not cubic (Cartesian). It is four-dimensional, not three. All these shapes are inherently compelling, familiar, and alive to us.

By contrast, a square building feels imprisoning. By nature, the right angle stops movement: of things, people, and energy. This stagnation saps and poisons occupants over the long term. Even turning at right angles while walking is militaristic and jarring. We compensate by making square (rectilinear or orthogonal) buildings larger than necessary to push corners away. We soften and round them out by filling their corners with stuff. Ever dissatisfied, we remodel. When that fails, we move, perhaps destroying a family or business in the process. Eventually, the only thing to do about such a toxic building is demolish it, or unconsciously arrange for it to burn down or even get bombed. Behind the apparent irrationality of war, crime, and carelessness lies a biological imperative to break free.

Due to gravity, single right angles of linear structures, like trees and stalactites, abound in nature. But not squares and cubes. Squares are inherently weak and inefficient. They collapse without diagonal support (triangulation) and require more edge for the same amount of area as circles. They mate poorly with the curved universe. A few minerals have cubic crystals, like salt. Not much else.

Orthogonal construction breeds decadence, disease, and violence. Rectilinearity is the geometry of slavery: Romans built on grids because they are easily policed. It is a military-economic strategy widely copied to the current day. Black Elk, a Plains Indian accustomed to tipis, observed the demoralizing effect of log cabins on his people on reservations. He decided, "It is a bad way to live, for there can be no power in a square."

How tiresome to find we live in voluntary prisons. What is to be done?

The problem solves itself. We simply turn our prisons into

escape pods. After all, we do need to stop moving around. We are sick. We are slaves. We need to rest, to recover ourselves, to reset our relationship to the world. Conscious of the immobilizing influence of these boxes, these cells, we can turn it to our advantage. We use it to stop. But not halfway, like beasts pacing restlessly in a cage. We stop fully, more and faster than anyone expected, without the slightest concession to the demand to constantly be busy. We can even say this is what our buildings were always for.

So rectilinear buildings are not just acceptable, but perfectly suitable for short retreats. We begin to remedy them by an art of placement: feng shui, vastuveda, wabi sabi, or [ordo](#). This may render them suitable for medium-length retreats. If not, and certainly for long retreats and public darkrooms, we replace, vacate, and dismantle them. We burn or bury their materials or purify them through re-use in round buildings.

A good building for the long-term is curved, round, or has five or more sides of equal length joined at equal angles. Rectangular walls are fine. So are right angles where floors meet walls. But not where walls meet ceilings or each other, as in orthogonal floor plans.

Happily, a handful of elegant, cheap, quick, [round shelter designs](#) are available for new buildings. It turns out that orthogonal construction is not simpler or easier. It's merely a frame of mind.

~/~

Now, let's learn to actually make escape vehicles out of prison cells. The next chapter gives detailed instructions and computer-drawn plans for your very own darkroom.

8 - make

“The time for half-measures and talk is over.”

- Maximus in *Gladiator*

Just the ideas in this book can bring relief and hope. But 99% of their value lies in their application. This requires a darkroom. Since darkrooms are uncommon, these last four chapters explain how to build darkrooms, usually inside existing buildings.

This chapter provides basic information that applies to all components of a darkroom. The next three chapters provide blueprints and instructions for components related to three elements: air, darkness, water. They are vents, silencers, seals, blinds, and kitchen and bathroom fixtures. Designs are low-cost, low-tech, and work off-grid.

A darkroom is a real thing you see and touch, make, use, and offer others. It is not a metaphor. It takes a knowledge, imagination, design, measurement, plans, materials, craftsmanship, construction, testing, and improvement.

These are normal human activities everyone can do to some degree and get help with the rest. If you can walk down stairs without falling, hit a plate when you aim food at it, hold a pencil, cognize sentences, tell light from dark, and feel a breeze, you are mechanically sufficient to begin. As Jack Nuckols, an engineer and my grand-elder, once told me when my time came, “Become a craftsman.” Perhaps your time has come.

I suggest that, your first time through these chapters, you read everything in this one. But just read the prose parts of the next three. Save the lists of instructions for the next time and again when it comes time to build. They make dense reading. Eventually, they’ll be replaced with graphical assembly instructions like IKEA’s. For now, slog through with me.

All components rely on the basic instructions in the following sections: **metric**, **tools**, **plans**, and **fabrication**. Each

component has special instructions and design constraints in its own section in later chapters:

[9 air](#)

[10 darkness](#)

[11 water](#)

After improvising darkness to sleep in [tonight](#), the [instant sleeping mask](#) probably comes next. Thus initiated, you can begin your training as a darkroom-building ninja. You will become invisible to everyone for awhile. And you won't be able to see anything, either. Haha.

If you need more specific advice for darkening your space, I provide [design consultation](#). Yes, guiding people by word and picture on a chat application toward a completed darkroom and successful retreat actually works, and I have done it. Likewise, feel free to use these [open-source](#) designs and my consultation to darken other people's spaces as a service for money. See [license](#) for my liberal terms.

metric

I give all measurements in metric, mostly millimeters. Are you used to inches, pounds, and gallons? Get a handle on the brain-descrambling metric system in a split-minute:

1. understand that, with metric, you will simply be counting to 10 and multiplying by 10 like normal. You will not be wrangling fractions and multiple conversion factors as in the imperial system.
 - basic metric conversions:
 - length: 1m=100cm=1000mm (meter, centimeter, millimeter)
 - volume: 1L=10dL=1000mL (liter, deciliter, milliliter)
 - mass: 1kg=10hg=1000g (kilogram, hectagram, gram. Mass is like weight. But it uses a balance, not a spring scale, so it does not depend on Earth's gravity. Build a darkroom in space!)

- cool intra-conversions:
 - 1L=10cm x 10cm x 10cm (1000cm³)
 - 1L water=1kg
 - thus, 1mL water=1cm³=1g
 - brilliant! simple! humane!
2. use these imperial near-equivalents to practice the metric system, visualize my descriptions, and make estimations. Not for precise conversions or large quantities. (*My favorites):
- length
 - *25mm = 1" (inch)
 - *100mm = 4"
 - 30cm = 1' (foot)
 - 1m = 1 yard & 4"
 - 3m = 10'
 - area
 - 1m² = 11'²
 - 4' x 8' sheet = 120cm x 240cm (~3m²)
 - the genius $\sqrt{2}$ -based A1-A8 paper size system
 - volume
 - *4L = 1 gallon
 - 1.7cmh = 1cfm (cubic meter/hour; cubic feet/minute of air)
 - mass
 - 28g = 1 oz
 - *1kg = 2 lb

tools

Making components requires some or all of these tools:

1. table or desk
2. measure
 1. Note: before purchase, test tools for accuracy, which can vary between identical tools, even of good brands. Instructions below.

2. metric ruler, 30cm, clear plastic. If reproducing plans by hand rather than printing them, then get an [Incra ruler](#). For its effortless marking precision, I recommend it for making anything at all ever. It's the greatest hand tool I have ever used.
 3. meter stick, steel with engraved marks
 1. put marked edges of two sticks together so 40cm mark of one meets 60cm mark of other
 2. push ends of both against a wall and check how well marks line up
 3. repeat with other sticks till you find a match
 4. buy one of them
 4. metric measuring tape, 5m
 1. use a tape whose case length is easily and accurately added to the figure on the tape itself. Some measuring tapes are designed to give highly accurate internal measurements, eg, between sills
 2. hook tape on end of meter stick and compare marks for accuracy of external measurement
 3. push end of meter stick against a wall, put tape on top of meter stick, and compare marks for accuracy of internal measurement
3. mark
1. 0.5mm mechanical pencil
 2. ballpoint pen, black or blue ink
 3. black marker
 4. straight pin with colored plastic head or masking tape handle
 5. magnifying glass (even a tiny plastic one works, like the one in a Swiss Army knife)
4. crease, score, cut
1. straight edge 200mm longer than your longest piece will be. 1-2mm-thick steel is best. An aluminum door or window frame member also works well. A board less than 12mm thick with a perfectly straight edge (check it!) is fine.
 2. table knife: use back of tip for creasing

3. razor knife with new blade: use for scoring and cutting. To score is to cut halfway through thickness of material with razor knife so it remains one piece and folds very easily
4. scissors for both paper and fabric
5. join
 1. masking tape
 2. wood glue, unthickened, any grade
 3. glue syringe, 20-50mL for precise, efficient gluing
 - available at:
 - as kitchenware along with 2-3mm stainless needles
 - pharmacies. Also get a 2mm x 40-50mm needle. Perhaps cut off the tip. If unavailable, use a cartridge from ballpoint pen, the fat (4-5mm) tapering type. Clean it out and trim it down to point in taper that fits over nipple of syringe
 - woodworking shops, with needles
 - remove needle and plunger. Cover nipple with finger and fill from back, leaving 10mm unfilled. Replace plunger barely. Point nipple upward and uncover it. Wait for air bubble to rise to top. Then push plunger in till air is cleared from syringe. Replace needle and use.
6. for [roller blind](#):
 1. drill
 2. screwdriver
 3. gluing clamp (for roller blind)
 - 2 straight, flat 35 x 90 boards, non-rounded edges
 - 1.5x as long as long edge of paper sheets
 - every 300mm, 8mm holes, an 8x80mm bolt, 2 washers, and a wingnut holding boards together
 4. hack saw (for roller blind), even just a hack saw blade is enough. Cover teeth at one end with tape as a handle so you can cut on the pull stroke

plans

I have drawn the plans on a computer for precision, clarity, and ease of modification. However, at first, they can be baffling to look at.

1. use the **key** to understand the symbols and marks
2. compare drawings to photos.
3. read the instructions through a couple times in the days before making begins.
4. then *follow the instructions*, one step at a time, and you ought to end up with the intended component.
5. dimensions are either H x W x L (height, width, length) or X x Y x Z (left-right, up-down, in-out or width, height, depth) with newer components: helix vents, silencer, fan mount, sleeping mask Understanding often comes through doing. If this does not work, write me and I'll try to sort out the confusion and maybe improve the instructions and drawings for others, too.

A drawing has one or two *views*, depending on the best way to communicate its information:

- *plan*: from above, two dimensional (2D). Default view if unlabeled.
- *elevation*: from the side (2D)
- *section*: a cutaway or slice of the object showing all parts when assembled (2D)
- *perspective*: from a non-right-angled point of view to capture more sides (3D)
- *exploded*: all parts separated but in correct order and linear relation (3D)

For example, the [helix vent](#) has plan views of its flat parts and one section view showing how parts are assembled. The [toilet frame](#) has both plan and elevation views, while the [shower](#) has an exploded view.

All plans can be reused except [sleeping mask](#) plan, which is destroyed as you make it. So make as many prints of it as masks you intend to make.

Images in this book are only for reference and hand-reproduction. They are reduced to fit book pages. Thus they are neither full-scale nor in proportion to each other. If reading on a screen while online, you can zoom in. Click each image to open the corresponding full-size plan as an individual PDF.

1. download all plans at once with the darkroom retreat [zip file](#). Extract (decompress) the file. Contents:
 - plans: a complete set of PDF plans
 - all photos below plus extras from website
 - SVG source files of plans for modifying them, originally drawn in [Inkscape](#). Use v0.92.3.
 - I would love it if someone made
 - 3D versions of these drawings with Sketchup
 - assembly instructions for the components like IKEA
2. print
 1. large format
 1. large format printing is cheap, extremely accurate, and much faster and easier than desktop printing. Most print shops, including Staples and Office Depot, now offer large format printing.
 2. email your files to print shop or take them on a USB flash drive
 3. paper
 1. specify cheapest option
 2. if print shop has 300gsm acid-free black paper on a roll for large format printing, print the helix vent's channels and walls directly onto it. Yes, black ink on black paper is visible enough to work with.
 4. have files printed in actual size, with no scaling. Before paying, check measurements with ruler or measuring tape. Distortion should not exceed 1mm over a 250mm span.

After resigning myself to 2mm distortion per 250mm (0.8%) with desktop printers, I was shocked to find almost no distortion with large format printing, maybe 0.5mm/500mm (0.1%). But then it made sense because architects, engineers, and builders depend on this service for their blueprints.

2. desktop

1. only do this if you are absolutely broke or can't find a large format printing service on your desert island. Desktop printing of plans takes a lot of time and yields imperfect results.
2. print
 1. open file with Adobe Reader (not Adobe Professional)
 2. in print dialogue, select: "Poster"; Tile Scale: 100%; Overlap: 1.0in; Cut marks: yes; Labels: yes
 3. use A4, letter, or legal size, possibly A3
 4. Distortion over 250mm span should not exceed 1mm.
 5. after printing one file, check measurements against ruler to 1mm tolerance.
3. join sheets
 1. cut a small wedge out of overlapping cut mark to align it with matching cut mark on sheet below
 2. align cut marks at perimeter of plan first, then the one(s) in the middle.
 3. use masking tape to join sheets

3. by hand

1. ruler and magnifying glass
 1. get large white paper to make a reusable pattern with. Don't measure directly on materials.
 2. to keep drawing orthogonal, use some combination of graph paper, drafting table, and extra careful measurement and marking. An [Inkra ruler](#) will help a lot with this.
 3. use magnifying glass to see small words and numbers in the book
 4. plans are as symmetrical and uniform as possible. If two similar-looking areas of a plan look the same size, they are. So from measurements given in plans, infer the rest. There is some redundancy so you don't have to figure out everything and can double-check essential measurements with arithmetic.

5. use grey-numbered cumulative measurements in plan to quickly mark lines
2. trace
 1. trace directly from a flat screen monitor
 2. zoom image till stated measurements match a ruler both horizontally and vertically
 3. tape paper to the screen
 4. mark ends, corners, and intersections of lines precisely and lines just well enough to know what you are looking at later
 5. you will have to overlap multiple sheets of paper for most plans, as with a desktop printer. On each new piece of paper, repeat the last set of marks from the previous so you know where to overlap and tape the sheets together.
3. key

Here is a key to the computer-drafted plans. Find further explanation of symbols, especially dash-dotted lines, in **fabri-
cate** section below.

key

l i n e s

<i>dashed</i>	---	crease & fold forward
<i>dotted</i>	crease & fold backward
<i>solid</i>	—	cut
<i>dash-dotted</i>	- . - . -	guide
<i>dash-dotted-arrow</i>	- . . . ▶	dimension
<i>asterisk-dashed</i>	- * -	score back & fold forward
<i>asterisk-dotted</i>	. * .	score front & fold backward
<i>sausage</i>		glue

s y m b o l s

<i>zigzag-arrows</i>		stretch
		shrink
<i>crosshairs</i>	  	hole (pin, 2, 3,
	 	4, or 8mm)
<i>letter</i>	A	joint
<i>black number</i>	72	mm between lines, corners, & hole centers
<i>grey number</i>	72	mm from B or L edge
<i>number with tilde</i>	72~	adjustable measurement

l a b e l

part or SHEET

dimensions (height x width x depth)

material

type, weight

amount (as paper size)

view (plan, elevation, section, etc)

fabricate

These instructions apply to all components, or as indicated. Read special instructions for each component in its respective section afterward.

1. prepare plans

1. for fabric parts ([sleeping mask](#), [roller blind seals](#))

1. using ruler and razor knife, cut out parts at outlines (except roller blind seals: cut around group of 8 seals)
2. cut out tape holes on dash-dotted lines
3. skip to step "3. make parts" (about two pages below)
2. customize [roller blind plans](#)
 1. cut out parts, leaving as much paper around them as possible
 2. measure variables (h , w , t) and derive measurements for parts. Write measurements on parts next to variables.
 3. cut lines running through stretch arrows
3. customize [threshold vent](#)
 1. using straight edge and razor knife, cut vertical lines running through shrink arrows in grey areas
 2. shrink left and right sections (push them inward, overlapping center section) until cut edges match center section's top and bottom mm marks equal to h
 3. draw vertical lines through mm marks in corners of plan equal to h
 4. cut horizontal line running through center shrink arrow
 5. shrink top and bottom sections until cut edges match center section's left and right mm marks equal to t
 6. adjust point C (at both left and right):
 - downwardly so its distance from point D equals $t/2$
 - horizontally so it lies on new vertical line
 7. cut vertical line running through center stretch arrow
2. transfer plans to material
 1. tape plans to materials
 1. [helix vent shell](#): align plan roughly diagonally to corrugations (or edges or folds) of cardboard
 2. where necessary, cut out small wedges from outlines of plans to align them with edges of materials. With some roller blind frame parts, dash-dotted extensions of outlines aid in this step.

3. parts with stretch arrows
 1. tape one half to edge of material
 2. using derived measurements and tape measure, mark material where opposite edge of part should be and tape it there
 4. lay out other plans on materials and tape opposite corners
 2. put three layers of cardboard on work surface
 3. transfer plan with straight pin
 - use magnifying glass for ease of marking and geeky precision thrills
 - poke straight pin through
 - all black lines close to ends (not grey glue sausages)
 - centers of holes
 4. remove plan from material
 5. label drawing, words oriented the same as in plan
 - dashed lines: circles
 - dotted lines: double circle
 - solid lines: squares
 - dash-dotted lines: triangle
 - holes: star
 6. mark the marked holes again
 - draw short lines from circles, triangles, and squares in the same direction as lines in plan
 - circles/double circles: add asterisk where indicated
 - copy joint labels (A, B, C, etc)
3. make parts:
1. keep scrap cardboard on work surface
 2. fabric parts (sleeping mask, roller blind seals)
 1. tape plans to fleece over tape holes
 2. roller blind locking seals: cut 8mm slits through plan with razor knife
 3. cut parts exactly around plan outline with scissors
 4. leave plans taped to sleeping mask side seals
 5. remove plans from other parts
 6. repeat steps 1-4 to make

- 2 sleeping mask center seals
 - 4 sleeping mask covers. For the 4th cover, use optional cotton fabric, add 20mm on side for seam allowance, and leave plan taped to fabric.
 - 4 roller blind locking seals
7. skip remaining steps 2-4 and resume special instructions
3. cardboard shell of helix vent
 1. trim excess cardboard around pattern but don't cut its edges (between squared holes) yet
 2. lightly crease between circled holes with back of table knife tip, avoiding breaking the surface of cardboard
 3. press the straight edge into creases to deepen them
 4. turn cardboard over and repeat steps 2 & 3 with double-circled holes
 5. cut between squared holes
 6. fold cardboard at creases, bending it well past 90°
 4. paper parts
 1. between holes with asterisks
 - circled pairs, score back, fold forward
 - double-circled pairs, score front, fold backward
 2. between circled and double-circled holes
 - crease front side with back of table knife tip
 - fold at creases forward
 - then, fold double-circled creases backward
 3. between squared holes: cut with razor knife
 4. between starred holes
 - expand to diameter indicated in plan
 - use a pointed dowel of appropriate diameter
 - spin it with your fingers or a power drill as you gently push it into hole

Voila. Now that we've covered the basics that apply to all darkroom components, let's look at those in the air, silence, and warmth department.

9 - air

The tricky part of making a darkroom is not darkening it but ventilating it. After all, now its windows and doors are sealed! So we'll look at ventilation first and darkness in the next chapter.

Even trickier is making it quiet. With noise pollution, we are usually at the mercy of our neighbors whereas with air pollution, we could buy a purifier if necessary. Ventilation most affects the silence of a darkroom. It also affects temperature. Let's examine each condition and see how they work together in a mechanical system.

ventilation

Below, I will give design constraints and describe various systems of ventilation. But I will first address its physiological importance.

breathe

Nature gives us a constant, abundant supply of fresh air, so our buildings should, too.

I have observed a shocking number of people who seem oblivious to their own need for fresh air. Even though everyone knows we die within minutes without air, the importance of continuous fresh air has somehow escaped many. I can only attribute this negligence to mass psychosis, my explanation for the appalling features of civilized life. At the risk of insulting your intelligence, I am bound to address this fact of life, though it is one of the most basic, most obvious ones of all.

Fresh air is always important. It is a normal condition of life and, along with warmth and safety, one of our most urgent necessities. Every second of our lives, quintillions of organic processes occur, and virtually all of them require oxygen. It

is the most important nutrient we consume. We can live days without water and weeks without food. Not so, air.

Just like food, air becomes a part of one's organism with every breath. This affects quality of life to a very great degree. Though it weighs little, the daily amount of air you breathe weighs twice as much as the food you eat. In a darkroom, you have little to do besides breathe. So if you haven't usually paid attention to air quality, you will likely notice it in darkness.

Whether you do or not, poor air quality cancels most benefits of a retreat. Intermittently airing the room out *does not work*. I mean opening the door a couple times a day with eyes covered. Put this approach out of your mind. This is darkness, not the dark ages. Whatever it takes, no matter where you are or what you are doing, always provide yourself with continuous fresh air.

For a darkroom retreat, this means either:

1. following the instructions below
2. hiring an HVAC contractor to clean, repair, replace, or install ventilation in your home
3. moving somewhere the ventilation system just works (like the tropics or a new house in northern Europe)
4. using [oxygen producing plants](#)
5. a combination of these

Somehow, it must be done. Forget darkness a moment. We have few more urgent concerns in life than arranging to breathe fresh air continuously and comfortably. Keeping it foremost in your thinking about darkroom design and construction will help ensure a successful retreat.

Not freezing to death and avoiding danger are more urgent than continuous fresh air. Building systems that meet these needs can all work in harmony. But unconsciously, fear and ignorance result in design conflicts between them. We have largely eliminated open fires in uninsulated buildings, which require massive inputs, labor, and maintenance. But we still often depend on windows for ventilation instead of a proper, separate system. The rest of this chapter will help you avoid such errors.

constraints

- system provides plenty of fresh air
- absolutely lightproof
- silent: absolutely no hum or harmonics from fan and exterior noises mostly extinguished
- comfortable temperature: no undesired cold drafts
- economical: ie, no wasted heat to the outdoors. This is more involved and a lower priority than retreating itself, so don't get stuck on it. It requires a heat recovery ventilator (HRV). Besides significantly lowering heating costs, an HRV improves air quality and comfort in nearly all climates. More about it below.

system

Somehow, fresh air has to get into the darkroom and stale air has to get out, without letting in noise or light.

In the terms of the HVAC industry (Heating, Ventilation, Air Conditioning), the fresh air vent is the *supply* and the stale air vent is the *return*.

Sometimes, supply and return vents exist in the same room. This is the fanciest version of *balanced* mechanical ventilation. If your place has it, thank your lucky stars. Just make sure it runs continuously. Unless your room is huge, intermittent is not good enough.

More commonly, balanced systems put supplies in bedrooms and living rooms, and returns in kitchens and bathrooms. This means air escapes a bedroom around the door. Unless the space outside the door is totally dark, this calls for a *threshold* lightproof vent (plans below).

Balanced systems are rare. More common are negative pressure systems: bedroom and living room windows act as passive supplies and bathroom and kitchen exhaust fans as active returns. In this case, a lightproof multi-purpose *helix* vent, built into a window blind, is the supply. Or a silencer if noise surrounds your dwelling. A threshold vent is the return, letting stale air escape the bedroom to the exhaust fan.

Rooms with totally passive ventilation rely on open windows, exterior vents, and infiltration through cracks. These

will get sealed against light. Such rooms will need helix vents in blinds at different heights to take advantage of convection. But they probably call for a fan and a silencer, maybe ducting.

By closely observing buildings I have discovered some simple ways to ventilate them. Sometimes rooms have lightproof and sound-dampened holes built into them in unexpected places:

- unused holes for pipes, wires, chimneys, and ventilation.
- behind a cupboard or inside a closet
- a removable panel or piece of trim that could be temporarily replaced with a panel with a hole in it.

For example, I once found a cosmetically damaged door in the garbage at a building supply store exactly the same size as my darkroom's door. So I stored the original door and cut holes in the damaged door for ventilation.

Another darkroom had no ventilation or suitable holes anywhere. Except it had no door. So we built a frame inside the doorway with a narrow door on one side and a narrower panel on the other. We cut holes in the panel for ventilation ducts. We fixed the frame in the existing doorway with metal straps screwed into old hinge holes. So we left no trace when dismantling the darkroom.

Similarly, we hung 7m of ducting that ran through three rooms; attached a silencer to it; made three window panels; and imperfectly covered five more windows with only one new screw hole in the entire rented house. And that hole was invisible behind a loose piece of trim. "Leave no trace" is a fun game that often improves design.

Sewage pipes drain downward but are ventilated upward. Once, friends and I replaced a flush toilet with a composting toilet. The exposed drain pipe, being oversize and in a single-story house, wasn't subject to backflow. So it proved a perfect exhaust duct for a case fan at floor level. Imagination conquers all obstacles (and renews itself in darkness).

If you are building a new house, separate ventilation from fenestration (windows). This improves many attributes of a shelter: security, economy, comfort, quietness, control, and darkenability.

lightproof

Here are further design constraints, photos, plans, and instructions for making and installing lightproof vents.

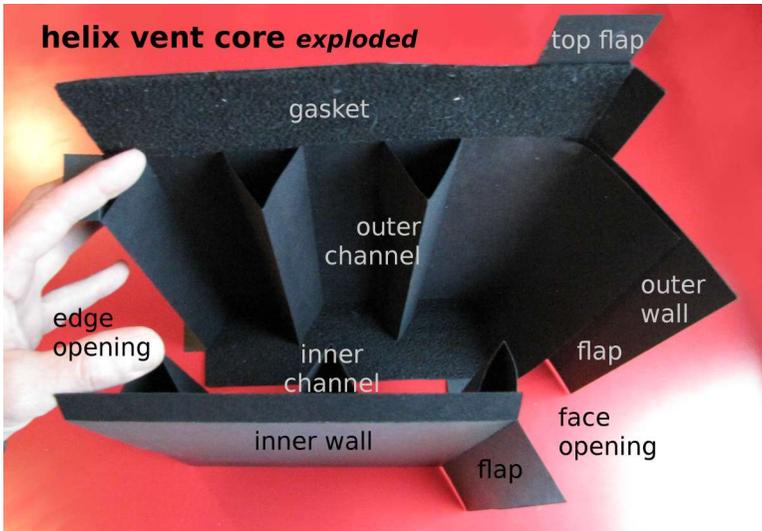
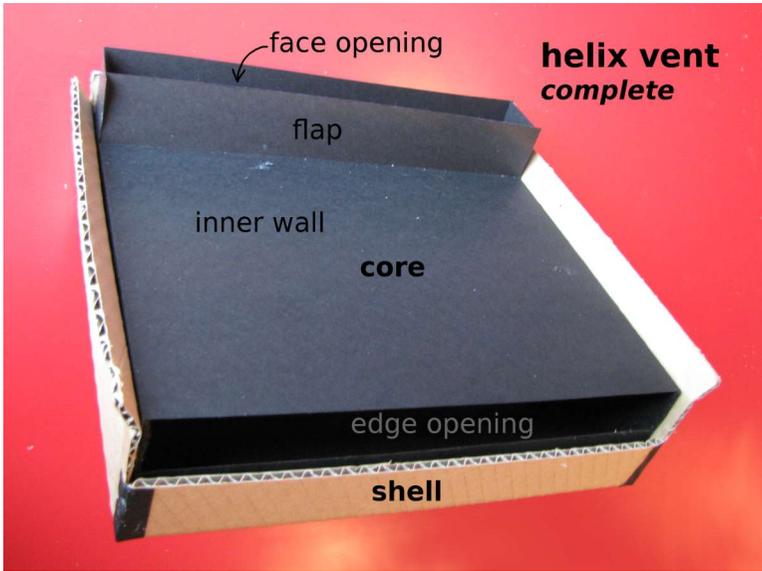
constraints

(helix / helix-z specifications in parentheses)

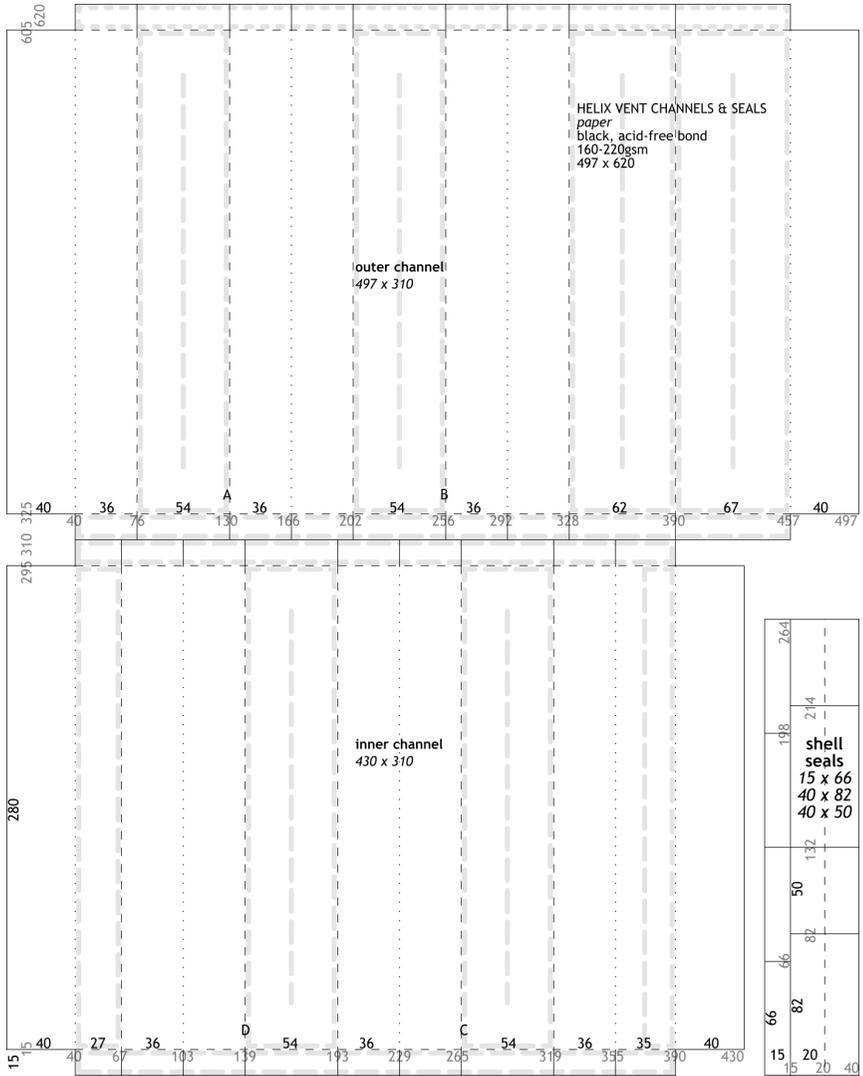
{threshold vent specifications in curly braces}

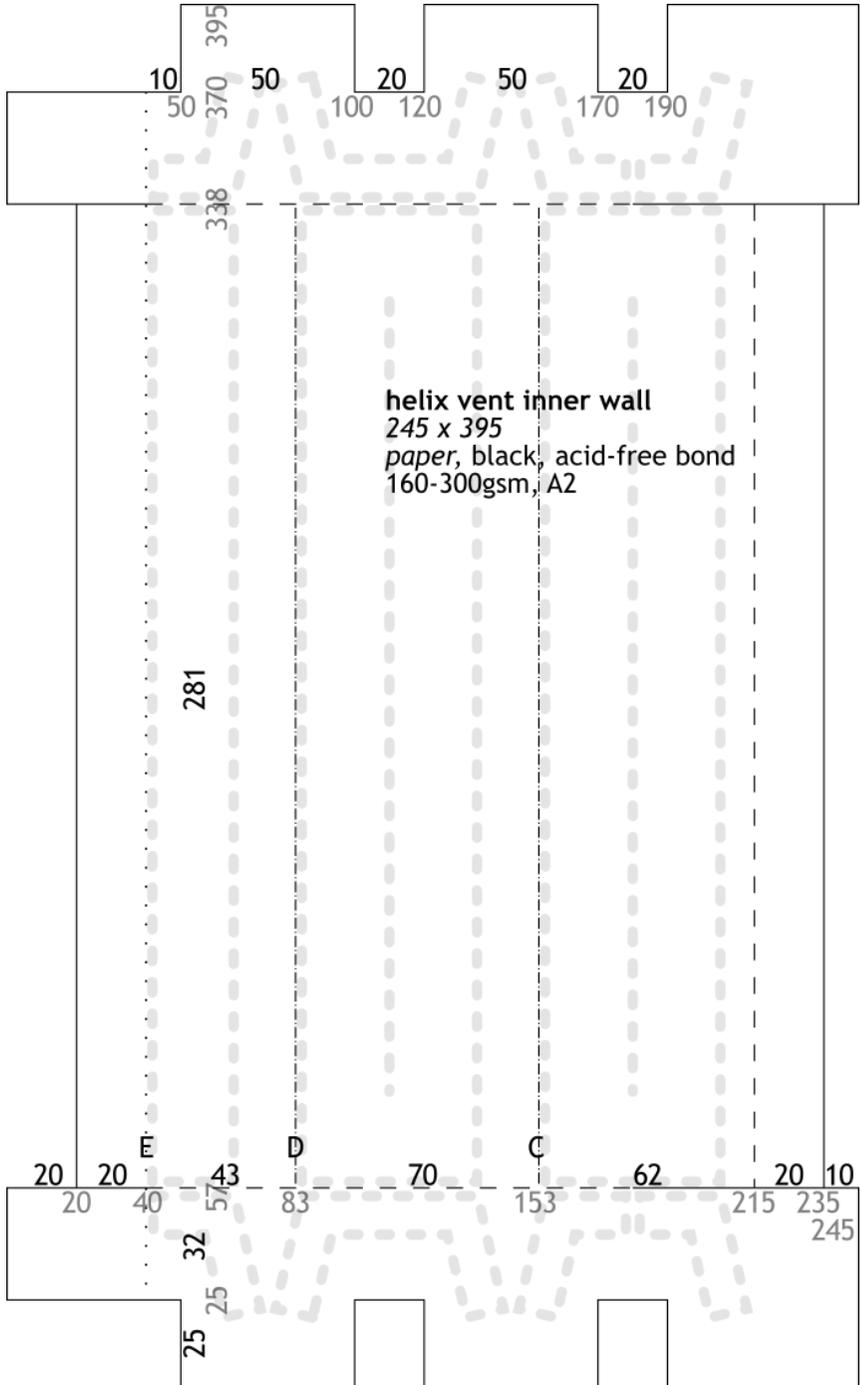
- durable (protected by cardboard shell or silencer){subject to damage by kicking but easily rebuilt and can be made of sheet metal or shielded with cardboard or thin wooden boards}
- thin enough to fit between blind and window (80mm) or door and threshold {adjustable}
- cross-sectional area $>75\text{cm}^2$ (90cm^2){ $60\text{-}120\text{cm}^2$ }
- fully traps light, sending light around at least 5 corners (7 corners / 5 corners){6 corners}
- short airway (240mm / in-silencer version, 160){140mm}
- minimal size (87 x 220 x 216 / in-silencer version 87 x 148 x 260){fits under door, sticks out 20mm each side and up 60mm}
- easy to make (so-so){yes}
- elegant (yes: simple compact form, uses common materials, zig-zag-shaped passage accommodates natural helical movement of air){yes}
- cheap (\$4 in materials, 2-hour assembly time){\$2 in materials, 1-hour assembly time}

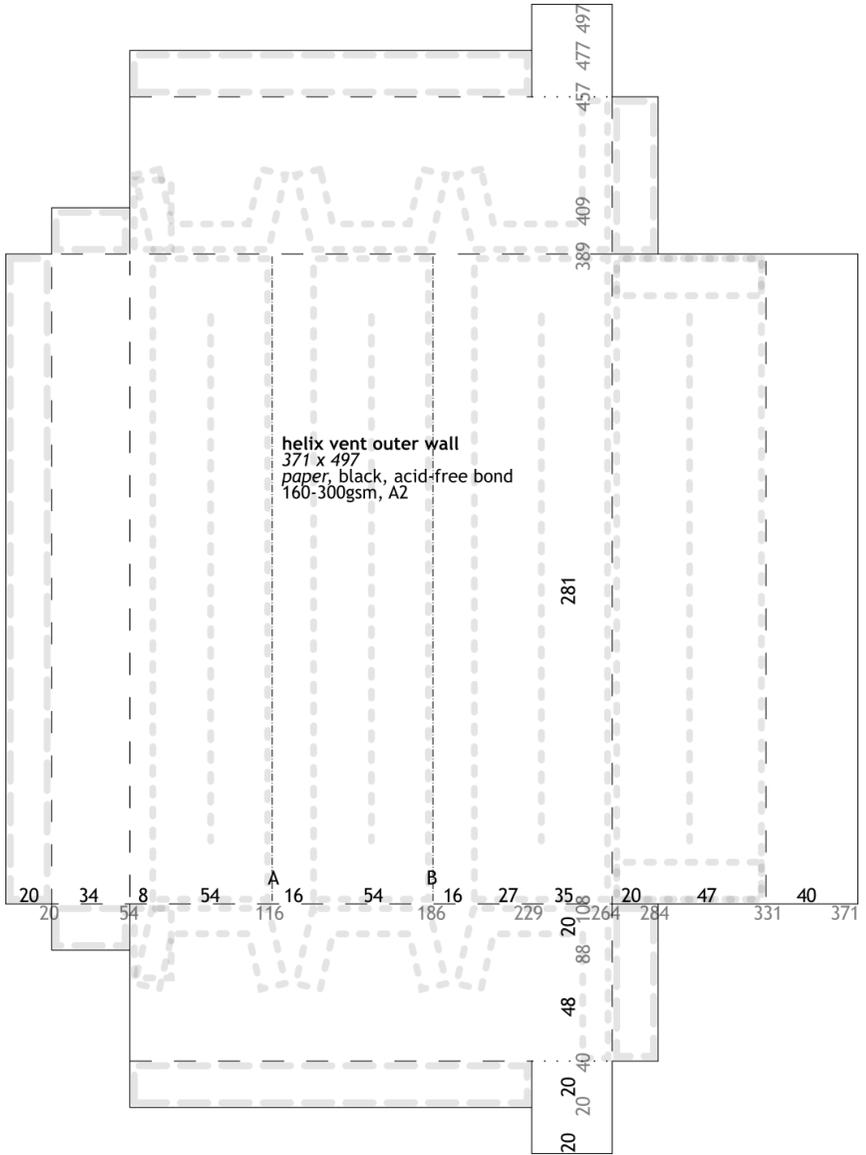
helix vent

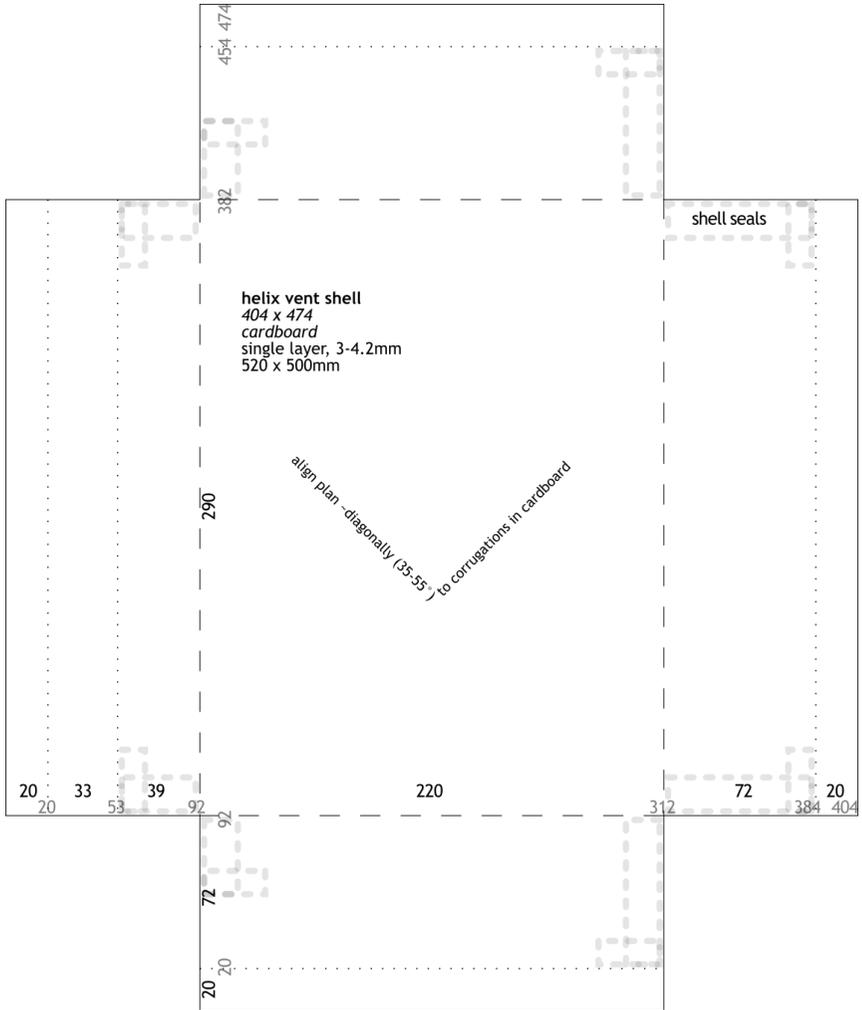


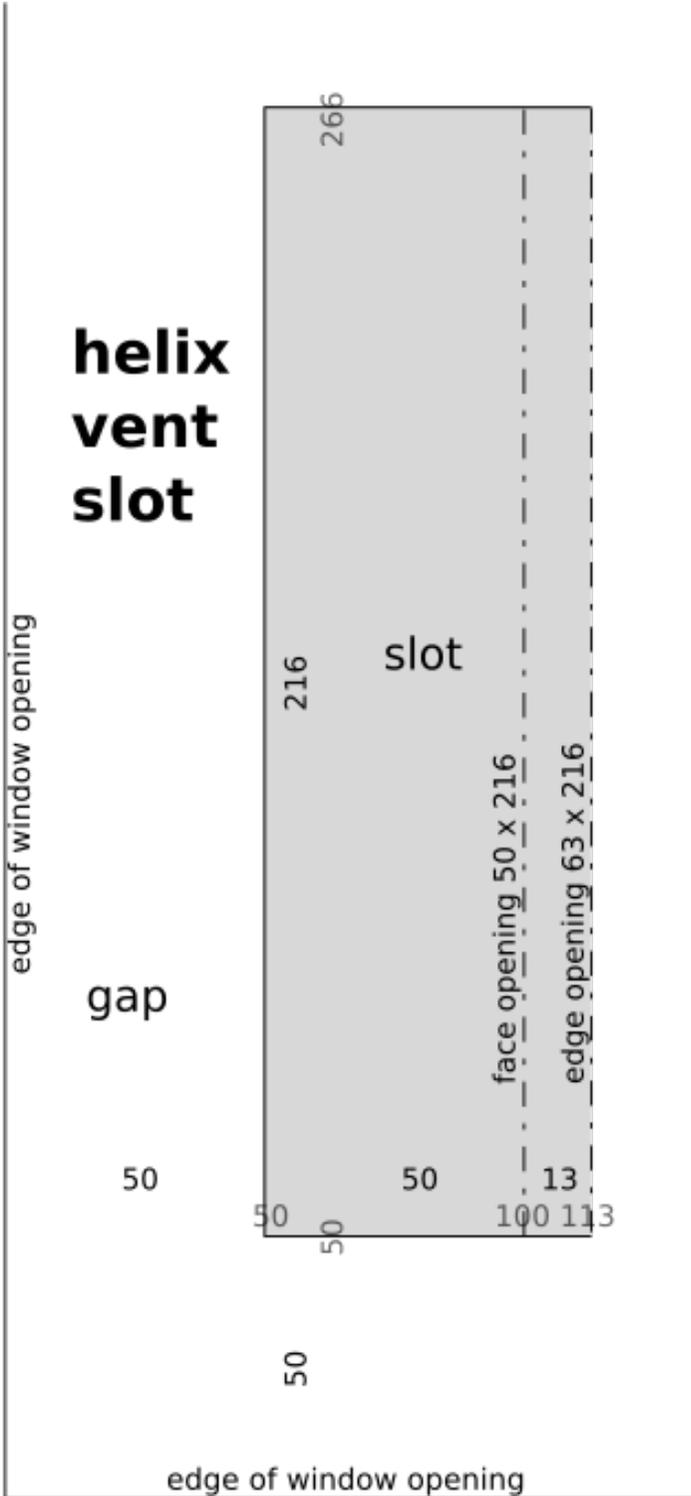
This photo is of the old helix vent. The new one is similar but: a bit narrower; triangles inside are more pointy; their edges have flaps; there is no fabric; at the side opening, the cardboard has a lip and the core has flaps.











I call it a helix vent because of how air actually moves through it: like a corkscrew. It might look like air would zigzag through like light. But air is a fluid like water and takes the path of least resistance. Which is to maintain the same curved trajectory by *helixing* through. Because the helix is the natural form of fluids in motion under any circumstance, this minimizes friction within the airstream as well.

The helix vent can go anywhere. Flaps of either its edge or face opening poke through a slot and get taped or glued down to the other side.

- blind: attach it to the back of a blind and crack the window behind it.
- door: cut slot(s) in it and use helix vent instead of a threshold vent.
- wall (leading outside or to another room): attach vent to a flat cardboard box and attach box to the wall over the vent. Vent can be either supply or return
- silencer
 - outside: with shell, attached at face opening
 - inside: without shell, attached at face or edge.
 - Z version: simpler, more efficient, higher capacity version especially for the silencer. Attaches at the side opening. Short and straight, it has fewer light-stopping corners and no shell. It is only for installing inside the silencer or other enclosure with two or more corners for light to go around. See drawings in next section.

If your darkroom's ventilation is passive, put vents both low and high in room to enable convection. This works better the greater the inside and outside temperature difference; the greater the vertical distance between vents; and the more vents.

Do you need a more compact vent? I used the 3-4-5 triangle ratio in the channels, so it can be shrunk to make a narrower, shorter air passage. Do you wish to manufacture vents? A set of simple wooden or sheet metal templates and jigs can speed production tremendously while keeping equipment and investment to a minimum. Start in your garage.

Materials are simple and non-toxic: heavy black acid-free paper, cardboard, fabric, and wood glue. Look in art or office supply shops for the paper. North Americans, use this paper weight and size [conversion chart](#). If large sheets are unavailable, glue small sheets together between folds in plan. Wood glue has high tack and quick drying time, easing assembly. School glue will work, too.

Read through instructions once while studying plans.

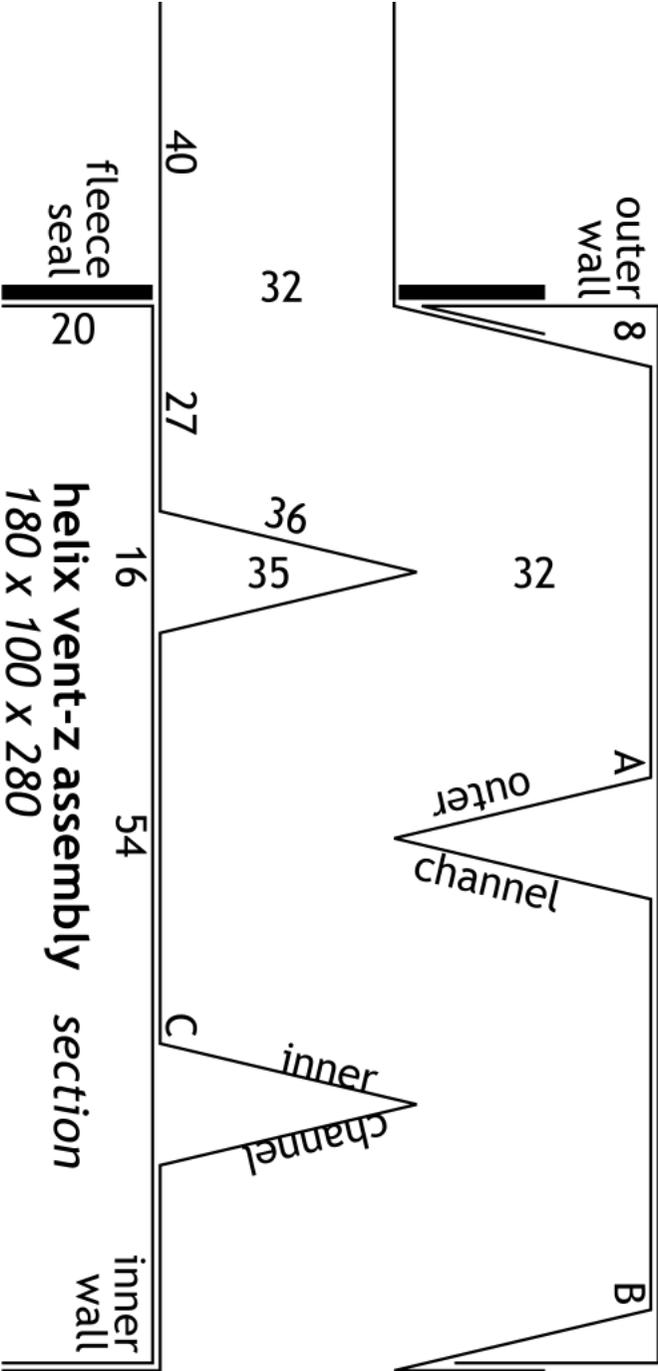
1. materials (see plans for quantities)
 1. paper (for channels and walls)
 - black, acid-free bond, coverstock
 - available at art supply, stationery, and book shops. In Europe, common posterboard is often acid-free.
 - two posterboard-size sheets (498 x 648 minimum) per vent
 - weights
 - channel: 120-300gsm (200 ideal)
 - wall: 180-400gsm (200 ideal)
 - total: 350-600gsm
 2. cardboard, single layer, 3-4.2mm thick (for shell, unnecessary inside silencer)
 3. fabric: polar fleece, black, medium weight (for seal. Quality check: 10 layers of it in a stack should measure 30-35mm high)
2. follow instructions in [make > fabricate](#)
3. glue channels to walls
 1. refer to plans and key to get a clear idea of how parts go together. Keep plans right side up, marks visible, wall on bottom, channel on top. Test joints with masking tape till you've got everything right.
 2. fat grey glue lines: long-dashed areas mate with short-dashed areas
 3. glue joints - outer wall/channel: left to right in assembly plan - inner wall/channel: right to left - use as little glue as possible to minimize warping, ~2mm bead - match lettered lines
 4. glue channel flaps to tops and bottoms of walls
4. assemble core
 1. orient sections

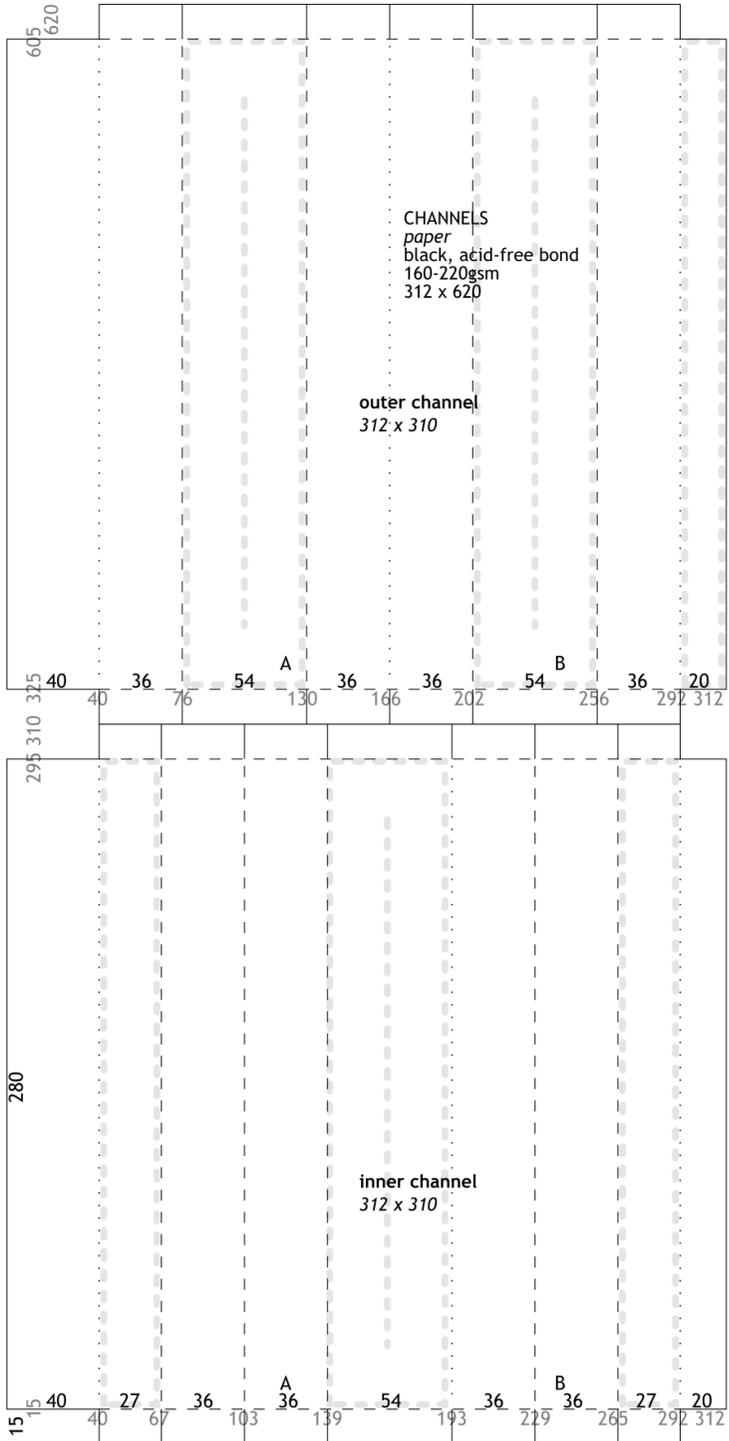
1. stand them right side up, channels facing you, outer section behind inner section
2. flip over inner one, so it is upside down and channels face each other
2. test joints
 - work inner and outer sections together
 - note how cut-out areas of inner wall's top and bottom butt up against outer channel's triangles
 - curl middle flaps between cut-out areas outward so they will contact outer top and bottom when glued
 - note how flaps help align sections
 - practice using table knife to press tops together when glued
3. separate sections then glue back together, one end at a time
 - use table knife
 - use flaps to align them
4. glue down flaps of outer wall to outer and inner walls
5. shell
 - glue joints of shell together with shell seals
 - put core inside and attach fleece seal with glue. This is a 20mm wide double-layer strip of fleece that goes around the flaps of the face opening. Three sides of the seal attach to the shell flaps. The fourth side goes across the core. Double-layers overlap at corners.
 - when not in use, store core inside shell, taping up flap by side opening. Cover exposed part of core with scrap piece of cardboard to protect core from being crushed.
6. installation
 1. determine vent location
 - in blind, panel, or silencer
 - whether it will attach at edge or face opening
 - shell is unnecessary when installed inside silencer or other enclosure
 - vent should not touch window handles, locks, or frame

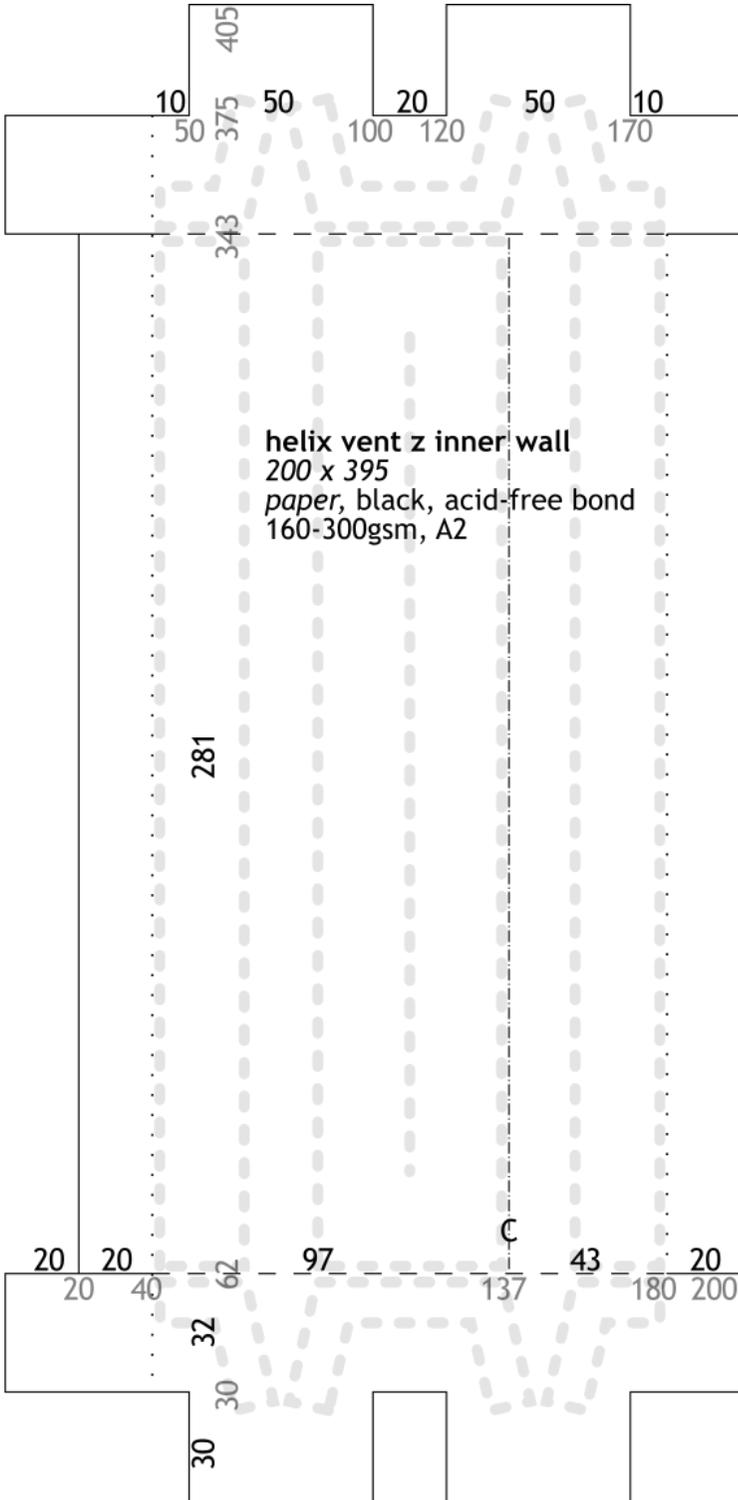
2. mark slot with slot plan
 - the slot plan spaces slot correctly on most blinds and panels
 - face opening, 35 x 281, on blinds, panels, or outside silencer, with shell
 - side opening, 32 x 281, inside silencer or other enclosure, without shell
3. cut out slot
4. position vent over slot and fit vent flaps through it
5. when attaching to soft window covering like fabric, plastic sheeting, or cardboard, pull long flap snug, use back of table knife tip to crease the outside of it right where it passes through slot
6. fold flap at crease and tape it to cover. Tape is removable for vent reuse in another configuration later if you like. Only glue it in place if you are certain of not moving it for years.
7. repeat with other long flap, then with short flaps
8. attach shell to cover with tape, glue, or screws going through cover, into wooden braces if cover is soft
9. cover shell with foil and/or white paper to minimize warping by sun

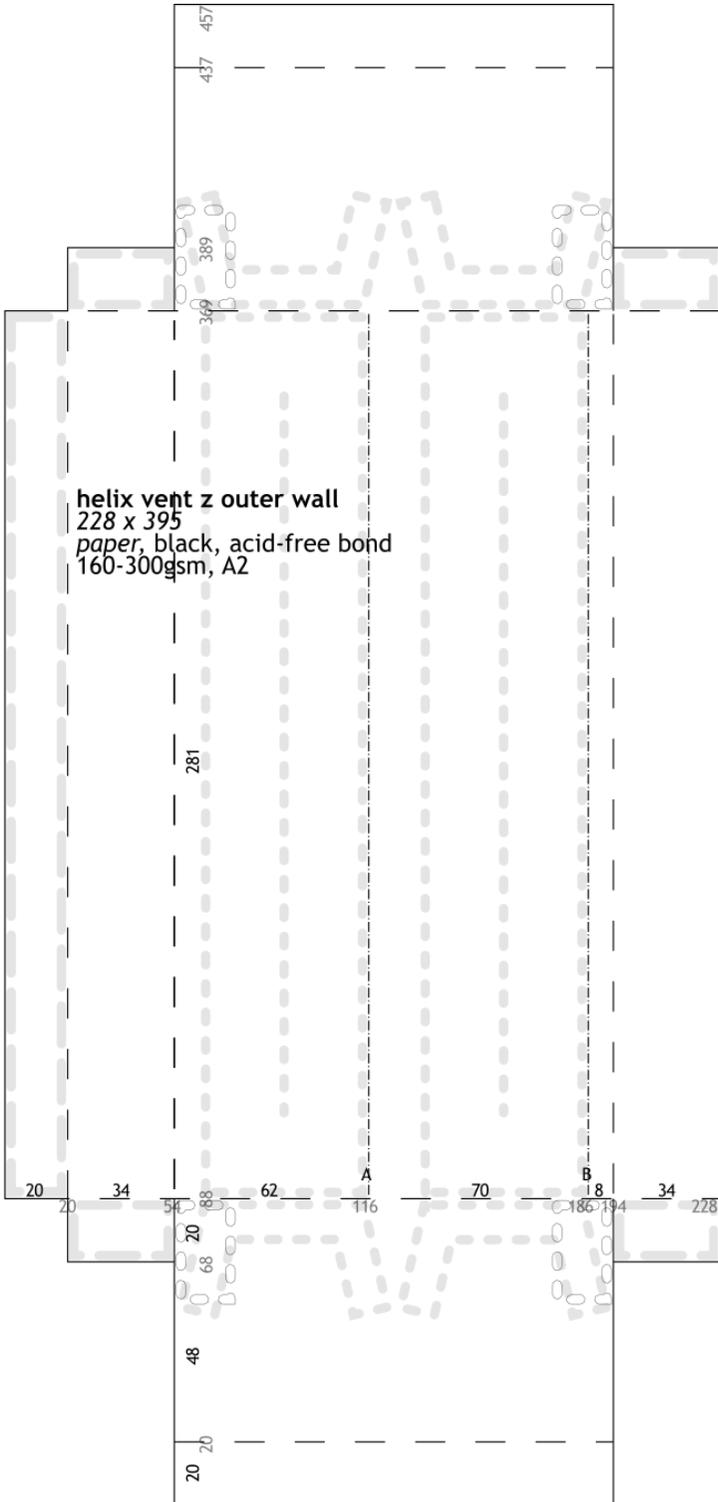
helix vent-z

For inside silencer or other enclosure with two or more corners for light to go around. Follow helix vent instructions above, adapting as necessary.







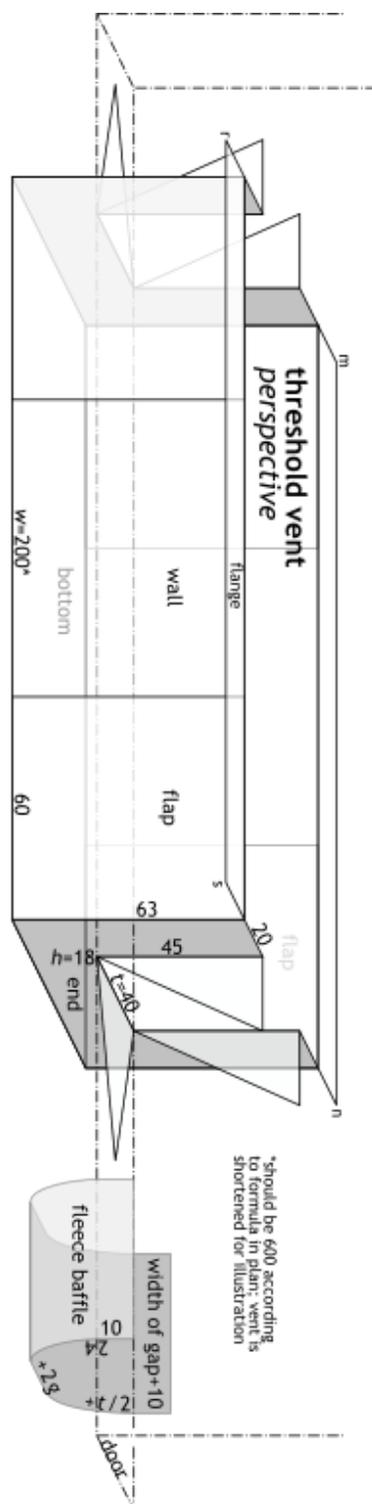


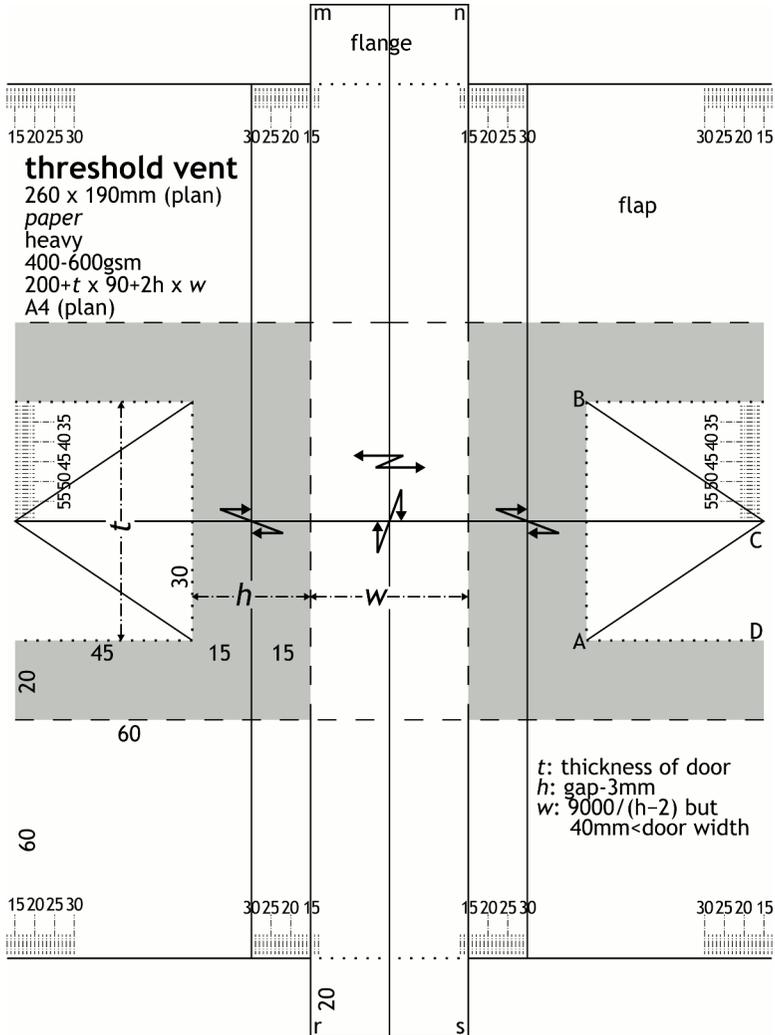
threshold vent

A bedroom door often has a gap at the bottom—the threshold—for ventilation. In mechanically ventilated dwellings, this gap allows air to flow out of the bedroom toward the dwelling's return vent (or perhaps just a window). The threshold vent lets air out but no light in. Its design adapts to door thickness, the height of the gap between bottom of door and threshold, width of door, and width of vent necessary for sufficient airflow. It works if gap is 15-33mm.

If greater than 33mm, add cardboard or wood to the bottom of the door or build up threshold with boards. Or modify the design. If less than 15mm, you can trim the bottom of the door. Otherwise, or if bottom of door fits into a stepped threshold, this vent will not work. Somehow, air has to get out of the room without letting in light.

Block light that reaches the door from the outside as much as possible. For example, make a [removable partition](#) in the hallway, which can also darken the path between darkroom and bathroom. It's a wooden frame a little wider than the hallway so it wedges in at an angle, with a fleece seal around the frame, filled with black plastic sheeting with helix vents as needed.





1. materials

- paper, black, acid-free, 400-600gsm
- muslin fabric, black
- fleece fabric, black

2. follow instructions in [make > fabricate](#)

3. blacken inside of ends (grey area) with marker

4. cut fabric to cover:

1. area of bottom of door surrounded by vent + 30mm above each side ($180-2_{h_{}} \times w$)
2. threshold ($t+40 \times \text{width of threshold}+40$)
3. inside of vent except ends ($t+200 \times w+5$; area between corners p, q, r, s)
4. underside of vent + 10mm all the way around ($t+60 \times w+20$)
5. attach fabric
 - with tape to door and threshold
 - with glue to vent
6. fold up ends to make a box-like structure, as in threshold perspective drawing
7. tape flaps to outside of vent body (this can be undone later to store vent flat)
8. tape vent to door at the triangular flaps
9. fill in gaps on each side of vent with fleece baffle, as in drawing. Fleece measurement formula: $20+2h+t/2 \times \text{width of gap}+10$. Use 2 layers. Horizontal edge of fleece should be 10mm above bottom of door. If it drags out of position, weight it with a stick inside, half the thickness of the door. It is 5mm extra wide on each side to seal against the vent and the door jam. Cut away any fleece that interferes with door seal (see below).

soundproofing

principles

Noise is another form of pollution a darkroom must provide shelter from. Noise comes from outside from machines, traffic—including big boats and airplanes—construction, music, fireworks, and talking and playing people. It comes from inside from other people in adjoining spaces, machines—refrigerators, fans, water pipes and pumps—music. At some point, noise defeats the retreat. It must be attenuated somehow, even in remote locations.

The four principles of soundproofing are clear and widely understood:

1. mass: heavy materials absorb low-frequency (bass) sounds
2. absorption: fine fibers absorb high frequencies and prevent echoing in air cavities
3. dampening: using rubbery material to dampen vibration in resonant materials like metal, wood, masonry, glass
4. decoupling: disconnect structures and airspaces to prevent transmission of sound vibration from source to receiver

[Soundproofing tutorials](#) abound online.

These principles apply to ventilation as well. Dampening and decoupling figure in fan mounting, and mass and absorption in silencer design. The silencer eliminates most noise, including from the fan.

Fans make noise directly and indirectly. Small fans have little hum to start with, but they run at high speed, so they develop a hum and harmonics. Bigger fans start with more of a hum but they run more slowly for the same air output, so they develop less noise overall. Avoid amplifying these vibrations by using the fan mount, below.

Even the quietest fan makes noise because of the friction of air itself against the fan blades, housing, ducting, and vents. Because of air friction, fully silencing a ventilation system requires a silencer of some type.

silencer

A silencer is an expanded duct section lined with insulation. Its greater volume depressurizes the airstream. This transforms low-frequency sound into high-frequency sound. High-frequencies vibrate the fine fibers lining the silencer, transforming the sound into heat. Genius!

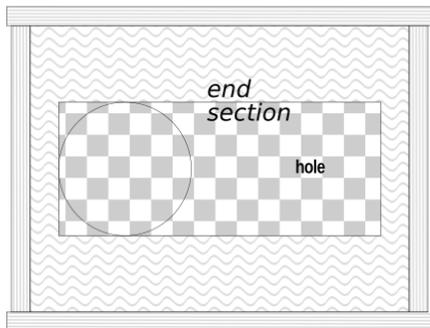
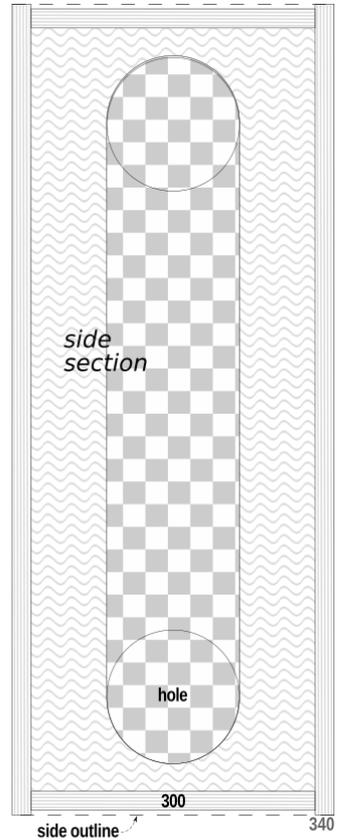
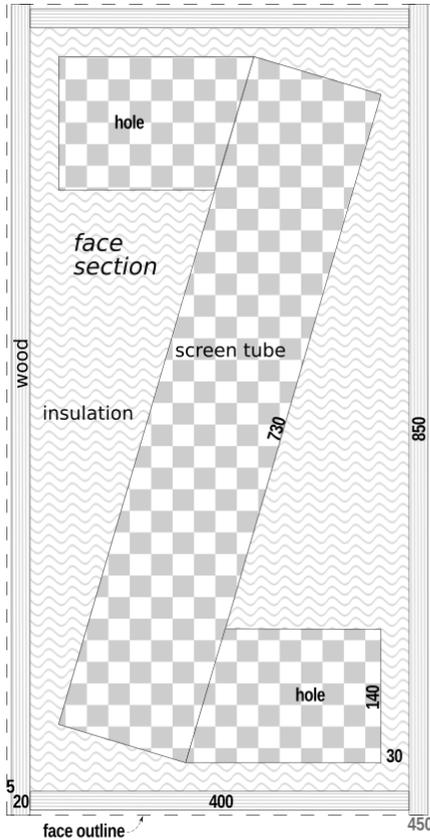
You can make or buy duct silencers.

- my double-turn box design is below, \$2-\$10 depending on your material salvaging skills.
- [DIY straight tube design](#)
- [acoustic ducting](#), at least 3m with 2-3 bends

- [silencer for sound booths](#). With dark insulation and enough bends, this eliminates the need for a lightproof vent.
- manufactured silencers are made of metal and other super durable materials and cost \$100-200.

In the past year, I built two box silencers into window recesses. They were simpler and much more effective than I hoped. They swallowed up sound. One of two window panes formed one face of the box. The window recess in the thick wall provided the 4 sides. Boards formed the box's outer face against the inside of security bars, about 20cm from the glass. I bought shredded fabric insulation to line it. See [darkness > window > panel](#) section for more about adapting the design below.

Thanks to Richard Nöjd of Skattungbyn, Sweden, for pointing out these cool solutions. Silencers and acoustic ducting are standard industrial components, making buildings quiet worldwide.



silencer

450 x 850 x 340

wood, insulation, screen

wood pieces
(9-20 thick,
15 is best)

2 faces 850 x 450

2 sides 850 x 300

2 ends 400 x 300

The plan is straightforward. It is just a wooden box with insulation. The zig-zag channel has a hole at each end. Each hole has 4 possible locations: either face, side, or end. Cut a circle for ducting or fan, a slot for a helix vent. The fan mount adapts to all 4 locations, inside or out.

The box is lined with porous non-toxic insulation. Pillow filling, quilt batting, cellulose, clean wool, shredded fabric, wood fiber could all work. Note, the shredded fabric and wood fiber I've tried had faint smells that I disliked. I feel hesitant to use acoustic foam because I don't know what chemicals are in it. Fiberglass and rockwool are unpleasant to work with and fiberglass often smells of chemicals. Closed cell foam like styrofoam, polyisocyanurate boards, camping pads, etc, is not porous so will not work.

Discarded furniture is made of melamine, an excellent material for silencer boxes. It is particle board with plastic veneer, usually 15 or 19mm thick. Marine plywood uses non-toxic glue. Otherwise, avoid plywood or line with aluminum foil.

Use a table saw to cut the 8 pieces so they come out square. Or have a carpenter do it for you, including the holes. Just take the drawing with you, modified for your needs. The carpenter probably has some extra melamine laying around to sell you cheap. To screw pieces together, first drill pilot holes so edges don't break. I always drill pilot holes in wood less than 30mm wide for this reason.

To insulate, make round tubes of plastic screen. Cover with porous fabric if insulation is fine, like cellulose. Stuff insulation around it and close the box. Roughen the plastic surface first with sandpaper so the glue sticks.

hum

In Europe, I have detected a strange hum in many places. It is a low-frequency sound and vibration that comes through the air and ground. My best explanation is that all the machines we use combined generate this hum. This includes cars, trains, airplanes, factories, ventilation (ironically), farm machinery, underground pumps and anything else you can think of. Most people can't hear it. It drives me more nuts than usual.

In fact, tomorrow I'll visit a music recording studio. Their technique of building a room within a room may work to stop this noise. The walls and ceilings of each structure don't touch. The inner room's' floor "floats" on vibration-dampening springs or rubber blocks. Let's hope the acoustic

and recording engineers have solved this problem.

machines

fan

Use an axial case fan, also known as a squirrel cage fan.
Specifications:

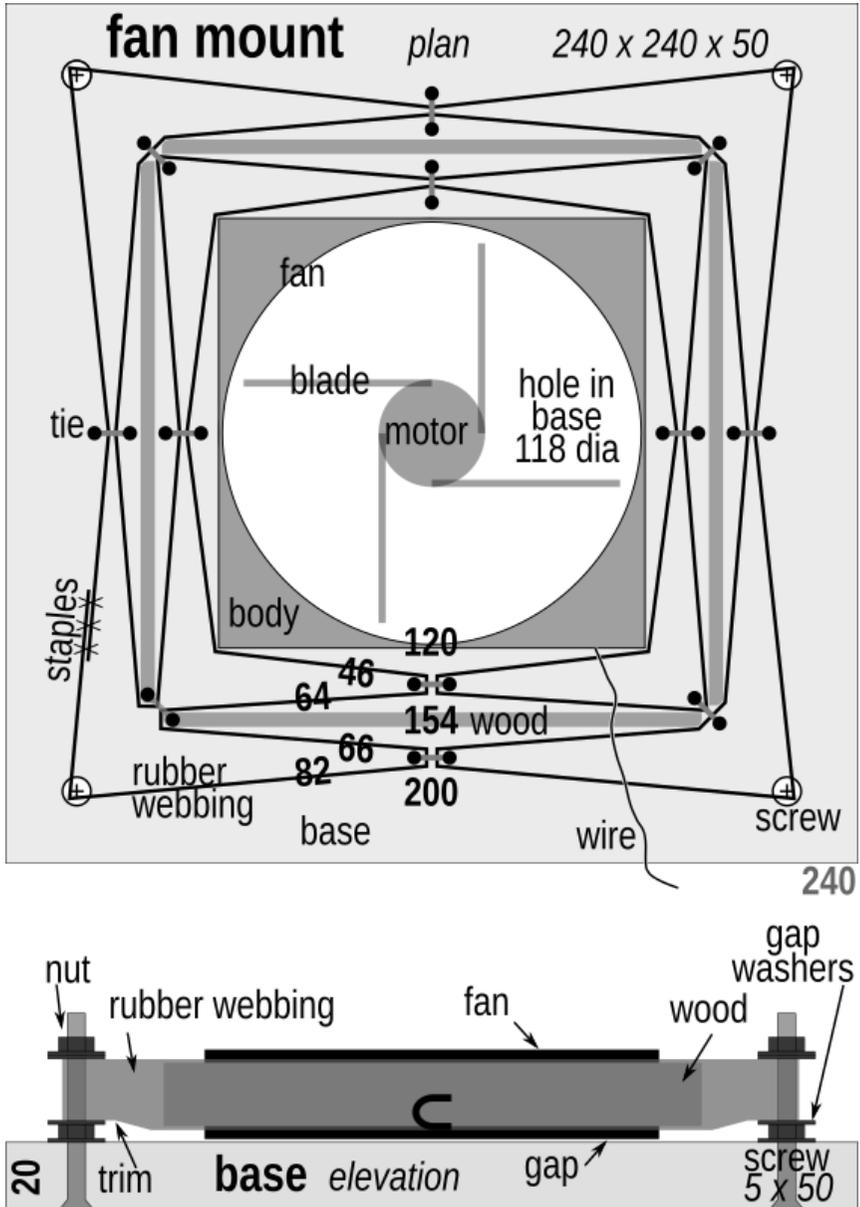
- DC (direct current)
- 12V (volts)
- 120-360mm diameter
- 600-1200RPM (revolutions per minute)
- maximum 20dB (decibels)
- 65-200cmh (cubic meters per hour) or 40-120cfm (cubic feet per minute)

120mm is the most common size, salvageable from a desktop computer tower, \$1 at thrift stores or flea markets, or \$2-20 at a computer or electronics store. Once you have experimented a bit, Noctua makes the best and quietest fans available, of 120, 140, and 200mm diameter, and as low as 7dB. Rexflo offers a [360mm jumbo fan](#). Avoid AC (alternating current) fans due to their penetrating hum (more on noise below).

Power it from the grid with an AC/DC universal adapter with pole switching and variable voltage for speed control (\$5 at variety stores). Off grid, use car or household batteries or a solar power system. To control speed, use a 12V DC/DC car adapter from eBay. Attach one fan wire at each end of the pack. No fan movement? Switch the +/- poles on the adapter or switch the positive and negative wires.

I just discovered cheap centrifugal “blower” fans in the same size. \$10-20 on eBay. I can’t wait to try one.

fan mount



This mounting design totally dampens vibration from the fan, which is already smooth and quiet. The silencer then absorbs the fan's airborne noise. It is inspired by studio micro-

phones and tensegrity structures. The resulting module fits over any hole in the silencer.

The design is fairly self-explanatory:

- description
 - a fan suspended in a web of 4 concentric rings of rubber, extended with 4 sticks in the web's middle, stretched between 4 screw posts, anchored in a wood base
 - modular, fitting on or in silencer in any configuration
- materials
 - base: 20 x 240 x 240 (center hole, 120 diameter). Cut precisely with jigsaw or have a carpenter do it for you.
 - case fan: 120mm (standard computer fan)
 - screws: 4@5 x 50 machine + 8 nuts, 16 washers
 - wood sticks: 4@ 4 x 18 x 154
 - rubber: 0.8-20mm thick, 15-40mm wide (depending on thickness; 1.5mm x 20 is best), 2560 long. Use inner tube of car, motorcycle, or bicycle wheel. Join two strips if necessary: overlap ends 30mm and staple together. It is tricky to work out distances between ties so that rubber has enough tension to suspend fan without too much movement. Start with these lengths: 800, 640, 640, 480
 - tie: wire, twist ties, zip ties, staples, or string
 - gap: 0.5-1 between base and fan
- assembly
 - overlap ends of each rubber strip by 30mm. Staple them once at first, 4 times after getting the lengths right. They should be stretched taut enough to suspend the fan.
 - ties: connect each ring to the next
 - trim rubber to 17mm width at screws
 - align fan directly over the hole in base. Gravity may pull it to one side or another. Tug on webbing to reposition it.

- adjust base-fan gap with nuts and washers and tugging webbing.
- screw base onto silencer over a hole in any position
- keep wires clear of outer 3 rings to prevent them from transmitting vibration.

power

In my first major darkroom in Guatemala, I had no electricity. I survived on foraged fruit and meals with my friends, Josh and Nadia, spending my last quetzal (worth \$0.12) on darkroom building materials. At first, to create a draft, I actually made lamps that burned cooking oil inside a lightproof chimney. It was a messy, unreliable, and labor-intensive process. No one should ever repeat it. But it worked long enough for my brain to make the leap to the 20th century and remember the existence of batteries.

AA batteries made a quick and dirty solution. One night requires 4-8 batteries, alkaline or rechargeable. Connect them in series: positive end of one to negative end of the next. Voltage adds up like this. Each battery is 1.5V, so 4 batteries=6V. Some fans need 7V or 9V to start, thus 5 or 6 batteries. Increase fan speed by adding batteries to the pack, up to 8. Increase pack life by using bigger batteries or another series in parallel (fan wires contacting ends of both series).

I was isolated and just learning. This simple discovery encouraged me after weeks of the absurdity of oil lamp-driven convective ventilation. However, changing batteries every day also quickly got to be a pain. So I bit the bullet and got a proper solar power system for less than \$100:

- solar panel: 12V. Size depends on location: 10W in Guatemala, 40W in rainy Oregon winter. (\$10-\$100 on eBay)
- charge controller: 12V, 4 or 6-pole (\$35 on eBay)
- battery: 12V 7A, lead acid (\$30 at a motorcycle shop)
- wire, 20 AWG, enough to connect everything (\$0-10 from your shed, a dumpster, yard sale, or hardware store).

Once built, maintain by wiping dust off panel once a week. What a luxury! Of course, if you have reliable wind or hydro power, that's great.

warmth

For heat, I often use a portable oil-filled heater. It is silent and can be positioned by a window or vent to warm incoming cold fresh air. Before buying, check that its indicator lights are easy to cover (not glowing from the interior through multiple cracks) and that it doesn't rattle or hum. Old or cheap ones often make noise.

If you live in a cold place, I highly recommend buying and installing a [Heat Recovery Ventilator](#) (HRV) for both health and economy. It conducts heat from return air to supply air while keeping airstreams separate using an exchanging core and fans.

Fine wire heat exchange (fiwihex) technology is my favorite. It is 15x more efficient than conventional plate exchangers. Fiwihex cores have been available for \$150 from [Viking House](#) and

[Vision4Energy](#) and possibly [Fresh-R](#). These companies' *Breathing Windows* embody an intriguing design for a complete ventilation system.

However, I lived with one for six months and found it too loud due to its small, high-RPM fans with no silencing. If fans were separated and silenced, fiwihex would be great. DC centrifugal blower fans are \$10-20 on eBay. Building your own HRV is doable. You need a centrifugal fan to create pressure to overcome the resistance in a core. Axial fans don't.

It also needs a filter despite the manufacturers' strange denials. Just a leg of a stocking inside a tube for each intake is enough. It's much easier to remove, clean, and replace than using core itself as a filter.

I have conceived a design for a convection-powered fiwihex ventilator. Worth trying someday.

The most interesting plate exchangers use the Mitsubishi *Lossnay* core, found in Energy Recovery Ventilators such as [Renewaire's](#). Made of high-tech paper, the Lossnay recovers heated water vapor as well as heat from air. Lossnay's princi-

ple has DIY-potential, using 25m² of non-siliconized parchment paper (“sandwich paper” in supermarkets). I have conceived a design for it. Please write me for details.

purity

In some cases, an air purifier becomes necessary. If your house is near a factory, busy roads, in a smoggy city, or near a smelly restaurant or neighbor, get one. Purification methods include:

- activated carbon
- HEPA
- Photo Catalytic Oxydation ([PCO](#)) is a new, interesting technology that destroys pollutants at the molecular level. Several companies make filters with it. Prices vary widely.
- UV-C light bulbs with 253.7nm wavelength destroys VOCS and germs and cost less than \$10. These would use the regular case fan and just need a helix vent to stop light.
- ionization produces toxic levels of ozone

Recently, I upgraded the ventilation system of a darkroom where people nearby burn coal for heat. Coal smoke smells terrible. I installed a carbon filter into the silencer. The \$50, 18 x 18 cm filter eliminates the smell. Catching the particles would require HEPA filtration, but it seemed less important at the time. The filter also stops all light and some sound. It requires a more powerful fan than a standard case fan to overcome the resistance it presents. The cheap DC centrifugal blower fan I mentioned above would work. Soon I will test it with the silencer, which will likely cancel its extra noise. If so, I’ll adapt the fan mount for it, too.

If air quality at your home is bad enough, consider moving. Lots of places in small towns and the countryside have clean air and are less polluted in general. It can be a cheap and simple solution to multiple problems.

~/~

That’s it for lightproof ventilation, silence, power, heating, and purification. On to darkening doors and windows.

10 - darkness

There is darkness, and then there is *darkness*. We're going for the second kind: perfect and absolute. There is a million-percent difference between 99% and 100% dark. Then the mind has nothing left to hold onto, no reason to resist. Finally it can let go, fall into the well of itself, and be renewed.

Though often easier to deal with than ventilation, light is relentless. It sneaks sideways through a single layer of clear plastic tape; through heavy fabric; around multiple, darkened corners; and at joints and edges of everything. After suffering many defeats at its hands, I have developed equally formidable means of eliminating it. I will now bestow them upon you so that you, too, can become a Conan the Barbarian of lightproofing.

Generally, to darken a space,

1. use dense inherently lightproof sheet material in 1-2 layers to cover area
2. use black polar fleece (or soft) fabric to seal edges
3. outer surfaces exposed to sun should be reflective: white or silver
4. in vents, channel light around 6 black-surfaced corners

Usually, using fewer layers means:

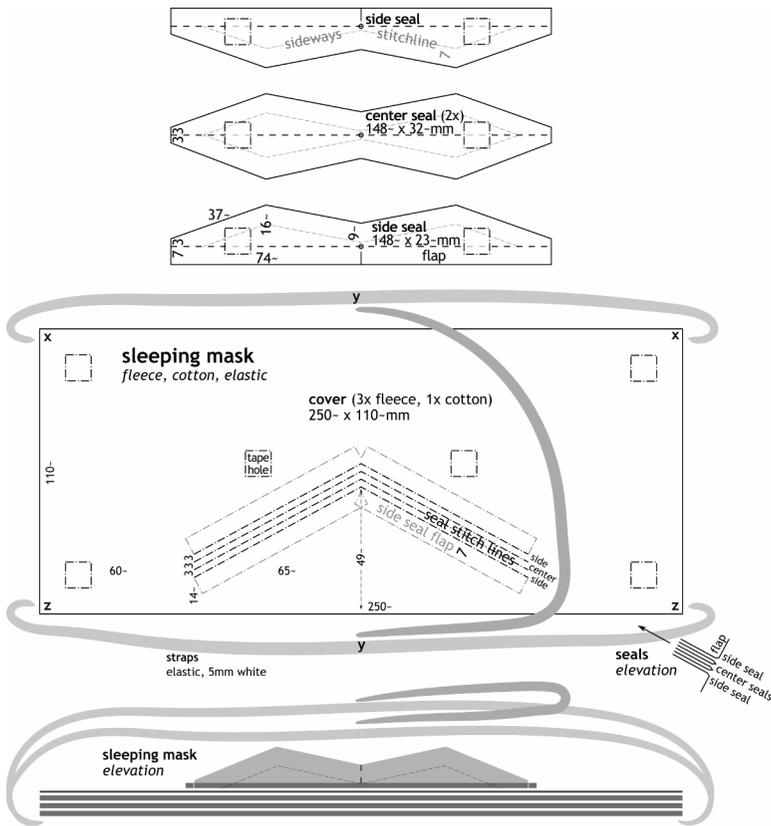
- easier, more reliable operation
- better function
- neater appearance
- greater need for precision

If improvising for [tonight](#): use many layers. With each layer, block as much light as close to the source as possible. First, block 99% the light. Then 99% of what's left. Then the last 0.01% is easier to address or ignore. Close any curtains in rooms or hallways outside a darkroom's door. Where possible, prevent direct sunlight from hitting your darkening measures with shade.

Edges are tricky. Black polar fleece is the best thing I have found for sealing edges. It's like a sponge for light. It is widely available, cheap, and forgiving. A knit fabric, its edges require no hem. Just cut and attach with school glue or tape.

We will start with the simplest and most portable design, which darkens the small space immediately around the eyes: the sleeping mask.

sleeping mask



The quickest way to obtain a large measure of darkness wherever you are is to cover your eyes with a good sleeping mask. No mask is comfortable for long periods while blocking all light and staying in place. And our skin has enough light-receptors for it to wake us up. So it doesn't replace a darkroom.

But it is cheap, quick, accessible, discreet, and very effective for immediately improving sleep. It is a good first step toward the profound rest darkness makes possible.

I have not tried every mask on the market. But so far, none has satisfied my requirements. So I designed one that works well. The strap design is very effective and would improve most existing masks. Instant and standard versions described below.

constraints

- blocks all light
 - through the mask
 - at its edges
- comfortable for many hours
- stays in place during sleep and gentle activity
- cheap and simple to make
- easily replaced elastic (skin and hair oils seem to degrade it quickly)

Some measurements in the drawing are marked with a tilde (~). This means they are adjustable. I have not developed a fitting system yet. So make one mask according to drawing. Then adapt it according to its comfortability and light-blocking ability on your face. The drawing is of the mask that fits me. I have a not-unusual face for a thin man of mostly Northern European heritage.

instant



Put this one together in a few minutes. It's like the mask below but without seals. Combined with a mostly darkened room, it blocks 95% of light and lets me sleep in and nap. Later, I succeeded in stapling seals to it.

- cut a piece from a black 100% cotton
 - T-shirt, 250mm x 440, folded the short way in 4 layers
 - or sweatshirt, 250mm x 330, folded in 3
- staple along its long edges
- 4 strap anchors - 3mm holes poked through with a ball-point pen tip, elastic going through them then knotted
 - or 2 staples each - knot where comfortable, endknots (overhand or figure-8) on one end, two half-hitches or slip knots on the other.
- vertical strap: make a slipknot in each end of the vertical elastic piece that tightens around the horizontal straps.

standard

1. materials

- soft black knit fabric:
 - 100% cotton sweatshirt fabric (French Terry cloth or loopback cotton)
 - 100% T-shirt fabric (cotton jersey)
 - polar fleece for the cold
 - cotton is cooler than fleece, which can feel scratchy, too. Avoid woven fabric. It frays and doesn't flex. A bright colored piece of cloth on the outside makes finding the mask in the light and in bags a lot easier.
- elastic, 3-5mm, white, helps to find the mask and is much more common in stores
- cord, 3mm polyester or nylon, white
- thread

2. follow instructions in [air > fabricate](#)

3. attach side seals to cover

1. put cotton cover with plan still attached on 2-3 layers of cardboard
2. each side seal has a 7mm wide flap divided by 5mm cut in middle and a small circle on dashed stitch line. Two side seals=4 divisions.
 1. align one division at a time to grey marks on cover
 2. tape in place
 3. sew on stitch line of plan to or from small circle
 4. tear plan in middle to bend seal
 5. repeat for other three divisions
 6. remove all paper from fabric

4. attach center seals

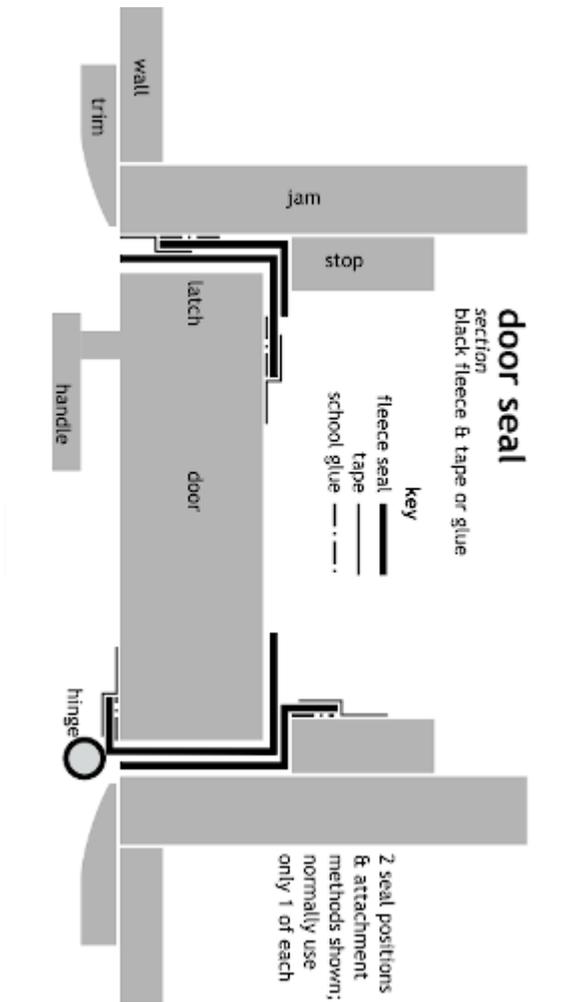
1. fold center seals in half the long way and fit them between side seals, making everything symmetrical and even
2. pin center seals to cover through their folds
3. sew (maybe hand sew) center seals to cover

5. bind seals

1. hand-sew seals together through sideways stitchline
 2. pull thread with minimal force, leaving seam neither loose nor tight.
 3. the stitchline is a little distant—7mm—from the zigzagging edges of the seals. This allows the seals to hold each other up to fill in the gaps on each side of the nose. Yet the unbound edges of the seals can fan out to more gently make contact with the face.
6. sew cover
1. stack all cover pieces, matching up edges evenly
 2. fold seam allowance of cotton cover under and pin in place to other cover pieces
 3. sew around edge of cover to join all pieces
7. prepare straps
1. cut elastic
 - 2 pieces 500mm long
 - 1 piece 250mm long
 2. cut cord, 4 pieces 30mm long
 3. melt all ends with flame to prevent fraying
 4. tie figure-8 knots in ends of elastic
8. attach straps
1. fold cord in half, making a loop. Sew loop to front of mask at points **x** and **z** so loops stick out over corners from cover 1mm and cord ends are pointed toward center of cover
 2. tie one end of a 500mm piece to a loop at point **x** with a slip knot
 3. tie other end at other point **x** with taut line hitch
 4. repeat steps 2 & 3 with other 500mm piece at points **y**
 5. tie 250mm piece to 500mm pieces at points **z** with slip knots
 6. the taut line hitch, when tight, slides on the part of the strap it is tied to, then locks in place, creating a strap of adjustable length. Adjust straps for comfort. Bottom strap should go around neck, top strap should go high around back of head.

This is a new design. I feel there is an easier way to do it, but this works for now.

door seal



Black polar fleece makes darkening a door easy and quick. Use masking tape at first. Tack edge of fleece in position with 10mm pieces of masking tape every 400mm. Then put a continuous strip of tape over the edge. Once you get the hang of it and know where you want the fleece to stay, use glue where possible (glue removal described below).

1. sides and top: affix 50-70mm wide strips of black fabric to door jam with masking tape or white school glue. When

closing, door should catch middle of fabric, pulling and bending it around one edge of the door and fill the gap between the door and jam.

2. hinges: make perpendicular cuts in edges of fleece to accommodate these 3: latch: make a parallel cut over the strike plate to accommodate the bolts
3. bottom: where no threshold vent is necessary, make a fleece baffle the width of the door. See threshold vent perspective drawing for baffle design. It is a half-tube of black fleece fabric that hangs from the bottom of the door on each side and touches the threshold or floor underneath. Tape a 100mm wide strip of black fabric to the threshold or floor under the closed door. Black fabric against black fabric makes a good light seal. Partially darken space beyond door with curtains or partitions to ensure darkness in the darkroom.
4. if light still leaks in the sides or top, affix a second strip to door, as in drawing
5. to remove glued-on fabric, wet it. This will dissolve the glue and the strips will peel off easily after a few minutes. As this happens, use a wet rag to wipe off glue residue before it dries again.

If door has a window, use one of the methods below to cover it.

blinds

To darken windows, use one of the five methods I have come up with—foil, plastic, panel, velcro, and rollerblind—or have blackout blinds custom made with side rails for 10-100x the money. Or invent something else.

constraints

- perfectly darkening
- quickly and easily operated so it actually gets used
- good-looking

- discreet: looks like a blind or curtain from the outside (not a secret cannabis-growing operation)
- accommodates lightproof vent
- window or trickle vent can be open behind it
- holds its shape over time in different temperatures and humidities
- durable
- of common, cheap materials
- reasonably easy to make
- easily uninstalled
- leaves few marks or holes

intro

Blackout blind fabric is plastic-coated to seal tiny holes in the weave. Like anything, fabric quality varies greatly. Light still leaks through the surface of some fabric. Here is how to test it.

Use a high-power flashlight too bright to look directly into, like a big Mag-Lite or tactical flashlight. Get a sample of fabric big enough to cover the flashlight's lens twice. Test the flashlight to make sure it works. Tightly tape one layer of fabric over the lens with lightproof tape, then another. Put it by your bed. Quickly darken your sleeping room as well as possible with blankets, cardboard, foil, etc, and go to sleep. After waking, before looking directly at any light sources, point the flashlight at your eyes and turn it on for a few seconds. You should see no light. Turn off flashlight to prevent burning. If you see light, the fabric is unacceptable. Remove one layer of fabric. If you now see light, then use two layers of that fabric. If you still see no light, you have found excellent blackout fabric you can use in one layer. Please let me know the brand. Blackout fabric that works perfectly in one layer is rare.

If buying a complete rollerblind, buy from an established local blind shop that cannot easily escape dissatisfied customers. Do not buy on the internet, regardless of price, guarantees, or reviews on (fake) review sites. (Yes, I learned this the hard

way). Buy only well-known, internationally distributed brands (which generally cause the least complaints). Get a guarantee of absolute lightproofness of the entire installation. Tell them you will be testing it with high-tech equipment. That is, with human eyes that have had three days to adjust to darkness.

Some fabric has toxic PVC (polyvinyl chloride) coatings. Get full disclosure of material content. The specifications of one product I looked at stretched to three pages. But still, under "coating", the manufacturer divulged merely one word: "polymer". This is another word for plastic. This could have meant PVC, so I did not buy it. It's too bad. Later I found out they use the industry standard, acrylic foam.

Search for PVC-free blackout blinds and blackout fabric. A handful of companies make blinds for traveling (especially with children). Some sell the fabric they use by the meter.

Below, I describe four methods to make blinds: roller, velcro, plastic, and foil. The rollerblind is most recognizable. For ease of fabrication and low cost, it has borders of heavy paper instead of aluminum or wood. It operates easily and looks good. It works with or without a vent. Making it takes patience and precision (difficulty level: 3 out of 5). The velcro blind is easier to make (difficulty: 2), almost as easy to operate, good looking if unconventional, but harder to remove. Plastic cover can be reused, even traveled with. It is the easiest and quickest method. Foil cover is for one-time use, easiest to get materials for, very cheap, quick, only a little tricky to make, and its PVC tape is toxic. So only use if really pinched for time, money, or material availability.

If your room's air supply comes through your window, attach a lightproof vent to blind near the top. Attach it to the outside of the blind if there is space for it. Test position of vent before cutting a slot for it to make sure it clears the window frame and handles. If your supply and return air pass through your window, use two lightproof vents, one near the top and one near the bottom of a blind.

Some casement windows leave no space for a blind or vent because they are flush with the wall and open inwardly on hinges. In this case, either:

1. build a deep-set frame around window to attach blind to

2. sew a velcro blind into the shape of a box so it attaches to the wall but then sticks out enough to allow the window to open behind it and contain a [helix vent](#).
3. remove window temporarily and replace it with a solid panel of wood of the same size with a slot cut in it for vent. See hard panel section below.

I will list the methods from quickest and cheapest to slowest and most expensive (in terms of both money and time).

lesson

Now for a quick lesson on window types and anatomy.

- types:
 - fixed
 - opening
 - * sliding
 - horizontal
 - double hung (vertical)
 - * casement (hinged)
- anatomy, from center of window to wall:
 1. pane: the glass itself
 2. frame: holds pane
 3. sash: holds frame, which closes against it. Often same as frame in non-opening windows.
 4. sill: holds sash; it's the surface where you put plants, candles, etc, but also corresponding sides and top
 5. recess: entire opening in wall where window is. Often same as sill. For roller blind, measure sill where it meets wall or trim
 6. trim: sometimes surrounds recess. It's on wall where it meets sill. If trim has a gently curved surface, bend roller blind rails to fit it. But do not attach blind to convoluted trim.
 7. wall

foil

disposable

This consists of foil taped over windows. It does not meet several of the criteria above. I put it first because most people have it now or can get it cheaply in minutes at the corner store. And use it for darkness tonight.

This only works on non-opening windows, where you don't need a vent. It helps if no light leaks through any joints of windows. Otherwise they can be sealed with tape or mitigated with dark curtain.

Foil only works one time. When it bends, it cracks and creates light leaks you can't see till the middle of a retreat. Bummer. But it works in a pinch if you are careful.

The trick is to unroll foil directly onto the glass and cut it in place. This prevents bending and cracking. Do not attempt to unroll and tear it from the box, away from the window, then apply it.

Do not tape foil to the frame, suspended in midair away from the window. It will rattle as air pressure changes near the window. Annoying.

1. materials:

- aluminum foil, heavy duty if possible (the wide stuff for grilling)
- electrical tape (19mm black vinyl), gaffer's tape, black masking tape
- scissors
- pizza cutter

2. assemble

1. with scissors, cut several 2cm pieces of tape and hang them within reach of the window (keep scissors handy)
2. starting 1cm from top left of window pane, unroll foil downward 10cm. Lightly tape foil at top with small piece of tape.
3. unroll foil to bottom and cut 3cm longer than the pane with sharp scissors

4. unstick tape at top and reposition foil so edges extend 1cm past pane
5. tape right side of foil to glass with 2cm pieces of tape every 40-50cm
6. press foil into corners of pane, folding edges onto frame
7. tape top, bottom, and left sides of foil in place with 2cm pieces of tape
8. repeat steps 2-7 but on right side of pane, then in the middle of pane
9. tape full length of foil seams, where sheets overlap. As you pull out a length of tape, it will stretch. Let it relax before applying it.
10. tape foil to frame
11. tack dark blankets over window to catch any leaks

reusable

Using white school glue (PVA), attach foil to cardboard or black posterboard. Once dry, wedge board in place over window, prop it up with a chair, or hang it with 1-2 pieces of tape. If the sun comes through really hot, face the foil outward toward it. Otherwise, face the black side toward the sun.

Use this method to quickly reduce light where absolute lightproofness is not required or practical. For example, during travel. Or if you have an unsealed bedroom door which is almost dark enough for nightly sleep, except direct sunlight hits it from the outside in the morning through a small curtainless hallway window, cover the window this way.

plastic

This method consists of taping thick black plastic over windows. This is my main method for quickly and cheaply darkening rooms for temporary use. To preserve the plastic for use elsewhere, I reroll it. Refolding big pieces on original parallel creases before rerolling is ok. But not making perpendicular folds, which can tear the plastic at intersections of creases.

This plastic is also great for traveling. Tape it up with masking tape in the corners. It cuts out 99% of light. The sleeping mask stops the rest.

1. materials (test whatever you use for absolute lightproofness)
 - 1 layer: extra-thick black polyethylene or EPDM rubber for pond lining or construction
 - 2-3 layers
 - common construction sheeting, black polyethylene, .2mm thick, found at building supply houses in rolls or off a roll by the meter
 - farmer's plastic/agricultural plastic/"light deprivation" tarp used in greenhouses, one side white, the other black or white with thin layer of black sandwiched between
 - several layers: large black garbage bags
2. assembly
 1. **Important:** First, cover inside of windows with white paper or fabric. Dual or triple-pane windows can be damaged or even explode if simply sealed with black plastic! Black plastic also attracts attention.
 2. measure and cut plastic to extend 100mm beyond window recess and any trim in case light and air leak between the window and wall. Or, if all joints and seals are perfect, and the window will not open during rest, cut plastic to almost cover frame.
 3. tape plastic to wall (or frame). Use 25mm black masking tape: Intertape PF3 or PB1, Shurtape T106. It is effective, cheap, sticks and conforms well to irregular wall surfaces, yet comes off easily without residue (unless you leave it up a long time). Not perfectly lightproof, it works with the plastic. Local art and professional lighting supply stores carry it. If it is not sticky enough on your surfaces, use photographic masking tape or black kraft paper tape. These are thicker (more lightproof), stronger, stickier, and more expensive. Look for ProGaff (formerly Permacel) 743, Shurtape 724 or 743, and 3M 235.
 4. avoid electrical tape and most duct and gaffer's tape. They are made of soft vinyl and especially obnoxious adhesives and are thus extremely toxic in

their manufacture, handling, use, and disposal. One exception I know is Shurtape PC 657, a polyethylene coated gaffer's tape. Do research; the devil is in the details.

5. if the room gets too hot from direct sun, then before taping up the black plastic, cut a piece of cardboard the same size as the recess. Tape or glue aluminum foil to one side of it. Leave 15mm spaces between the strips of foil to allow moisture to pass through. Set the cardboard in recess, foil facing outward. In really hot areas, cover windows with foil from the outside or get exterior blinds, shutters, or awnings.
6. if it is a cold room, face the foil inwardly to reflect heat back in.

panel

I mentioned this at the end of the intro above regarding casement windows. I have been making these more and more because of their soundproofing and lightproofing qualities and the wide availability of discarded furniture for free material. Unlike glass, it allows you to cut a hole to easily attach a duct or vent. Use it just for retreats or make it permanent if you have extra opening windows.

It can form a face of a custom silencer that is built into the window recess. The silencer design is very simple. Study it and adapt it to the size of your window. Using a panel for one face is usually easier than building a standard silencer and then still having to fix it to the window somehow. See [air > silencer](#).

Remove the window by its hinges. Carefully trace its outline onto the board you will use, or paper or cardboard if handles or hinges make that awkward. It should have 3mm space around it. Tracing is better than measuring because it also accommodates non-square angles that windows tend to have over time. Cut out the panel and make sure it fits in the frame. Attach fleece to edge so it bends over one corner and makes contact with frame on two surfaces all the way around.

You will stretch a cord or wire over the panel from one side of the frame to the other. Then put a block of wood between

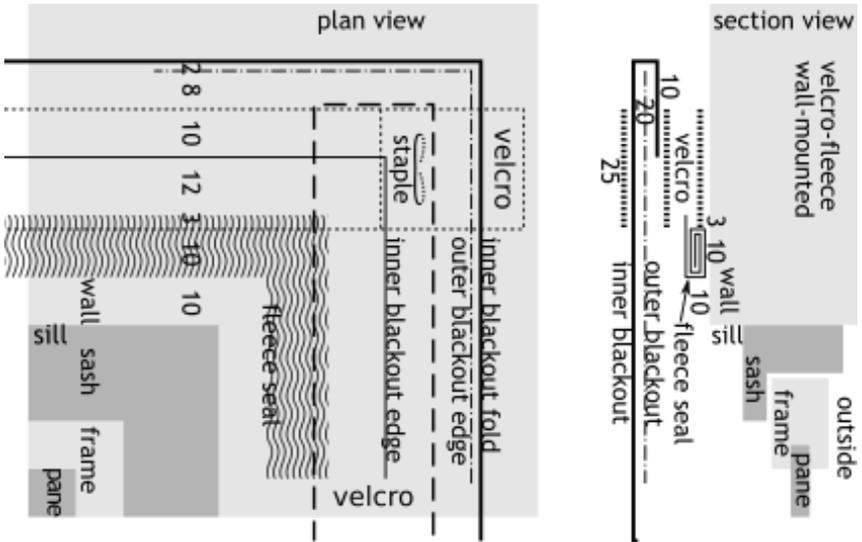
cord and panel to keep panel pressed in place. But first, see where the vent or silencer will go so it clears the frame, a screen, and the window recess.

Measure and mark a hole in the panel for the vent or silencer. Cut it out with a jig saw. Or drill holes in the corners with a 4mm bit. For each hole, drill two more 8mm away. Then drill between them along the line at various angles until you cut a slot big enough for a hack saw blade or keyhole saw.

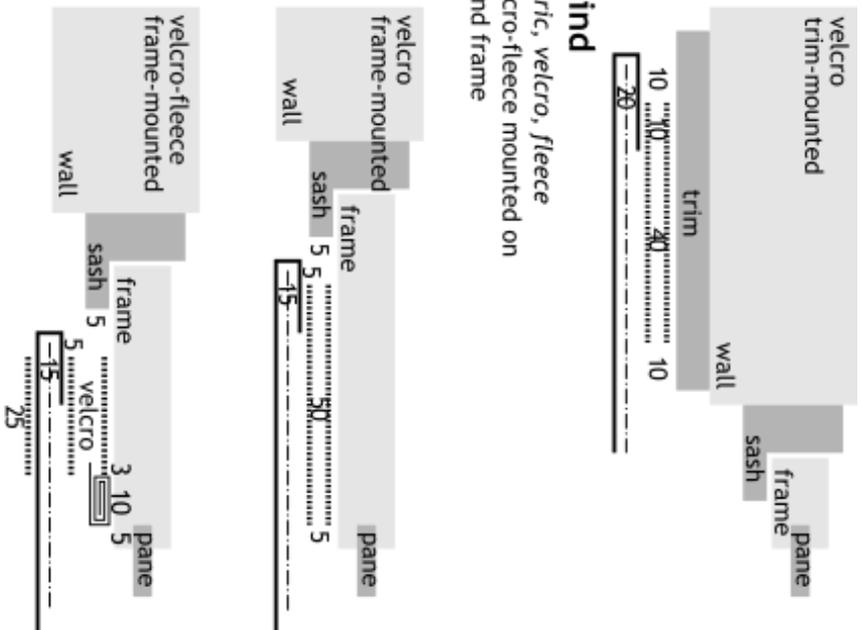
Attach a handle to the panel so you can lift it in and out. Just a 30 x 30 x 30 block of wood screwed to the board is enough.

velcro

Note: the plan view in this drawing shows just the top left corner of the blind and how the various materials come together.



velcro blind
blackout fabric, velcro, fleece
 velcro or velcro-fleece mounted on wall, trim, and frame



I am still testing this design. At first, I cut the fabric from

an IKEA Tupplar blackout blind and attached it to a window frame with adhesive velcro (hook & loop). This was the prototype. It only took an hour and it almost worked! Problems:

- light leaks sideways through the hook and loop of 25mm-wide black velcro!
- fabric is not perfectly lightproof in one layer
- plastic coating on fabric (especially black)
 - scratches easily, creating light leaks
 - peels off easily with adhesive of velcro or tape
- stress on ends of velcro cause it to lose adhesion, peeling off fabric or frame
- sealing black fabric over multi-pane windows destroys their vacuum seal with oven-level temperatures
- black fabric can overheat room

Thus, these (untested) improvements should make it work.

1. materials

1. fabric

- white IKEA Tupplar blackout blind
- 2 layers, coated sides facing each other

2. velcro

- 25mm wide with a thick seal of black polar fleece just inside the velcro
- 50mm wide (I have not tested this; I just know 25mm is almost enough to stop all light)
- designs for both widths, each in two positions, are included in plan

2. extra tools:

- wooden cooking spoon or other smooth, rounded piece of plastic or wood, at least 50mm long
- board
 - 10-20mm thick, 10-40cm wide, 200-300cm long,
 - clean, smooth, straight, flat

3. choose position

1. window recess

- attach blind here when:
 - attaching lightproof vent to blind and keeping window open
 - window frame is not big enough to hold velcro
 - light leaks around frame, sash, sill, or trim
- cut first piece 55 wider and higher than recess for velcro-seal, 75mm wider for velcro-wide

2. window frame

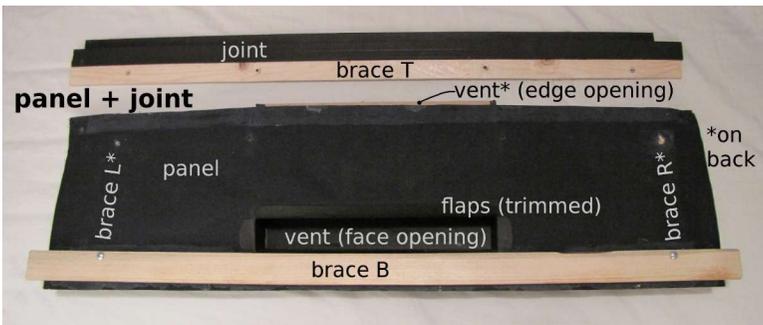
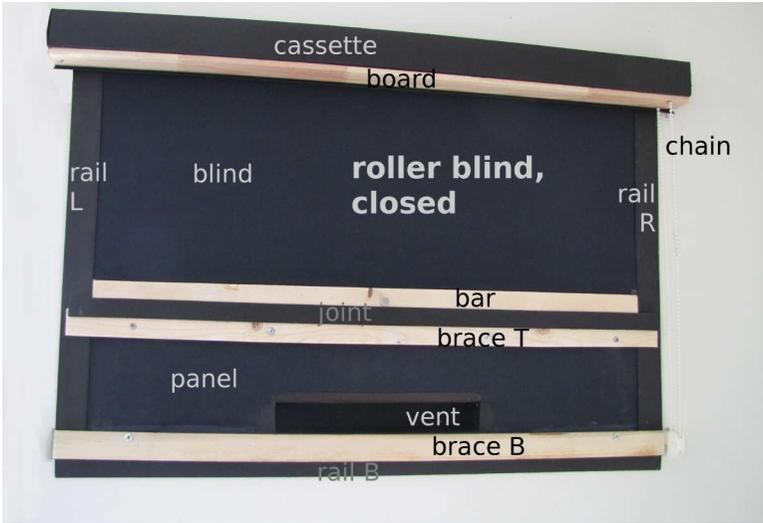
- attach blind here when window
 - opens but will never open during darkness
 - has a perfect light seal
 - has a frame at least 45mm wide
- cut first piece of fabric 7mm narrower and shorter than exposed part of frame
- cut second piece 40mm wider and 40mm higher than first piece

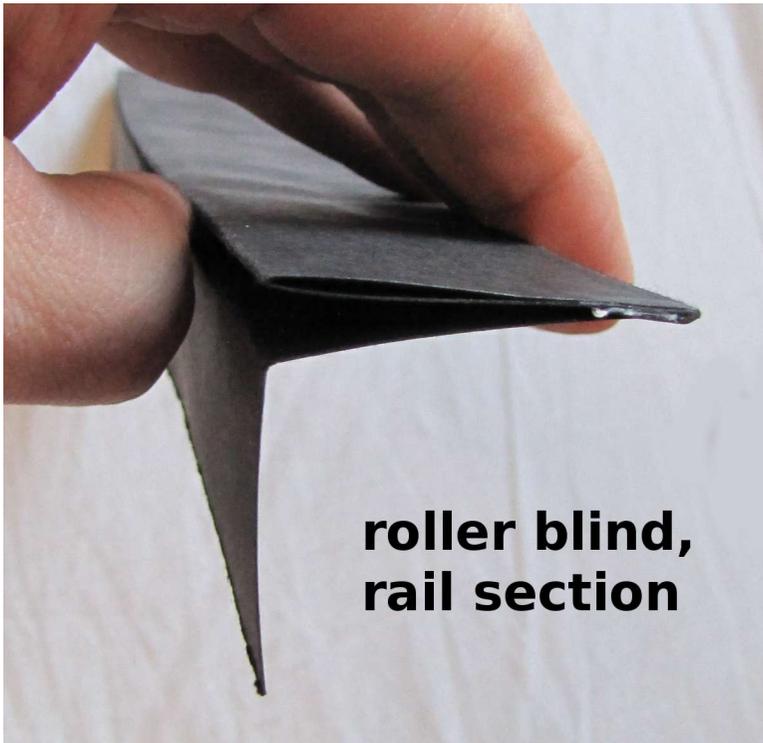
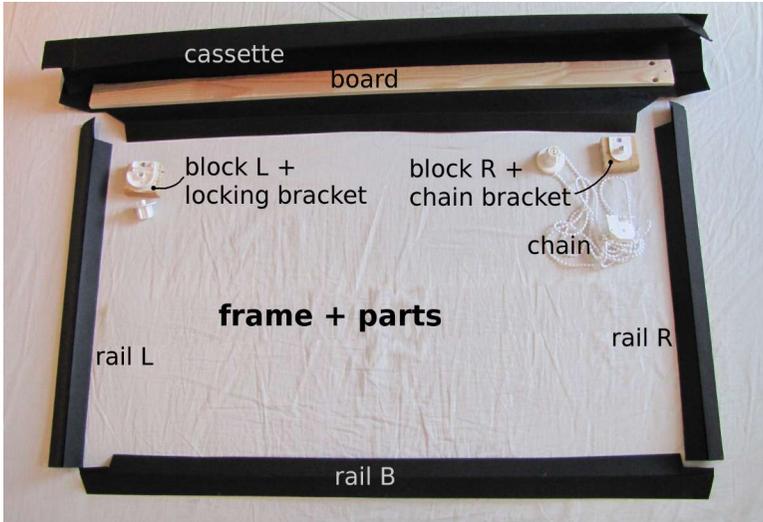
4. assembly

1. affix hook (scratchy) side of velcro to frame or wall all the way around the window
 - outside of velcro is 60mm from edge of glass or recess
 - extend vertical strips 10-30mm beyond horizontal strips
 - affix one side, then top and bottom, then other side, ends of horizontal pieces jammed against edges of vertical pieces
 - cut four, 10mm strips of loop (fuzzy) side of velcro and mate them to ends of vertical hook
2. mate the loop to the hook, sides first, leaving the paper adhesive cover on
 - horizontal strips should overlap vertical strips
 - vertical strips should extend 90mm past horizontal strips and 30mm past edge of fabric
 - go around velcro and press it hard into wall to improve seal of hook to frame/wall
3. join mylar to blackout fabric
 - cut mylar or white fabric for style 1 the size of the glass pane; for style 2, the size of the recess

- glue mylar or white fabric on uncoated fabric side of blackout fabric with textile glue or spray adhesive, leaving 10mm gap between edge of mylar and where velcro will be
4. join decorative fabric to blackout fabric
 - wrap decorative fabric 20mm around the edge of the blackout fabric
 - attach it to the back with textile or hot glue or by sewing
 5. join fabric to velcro
 - tape corners of fabric over the velcro so fabric extends 30mm past velcro
 - undo the masking tape at the bottom corners
 - get under fabric, lifting it away from velcro
 - remove paper adhesive cover from top horizontal velcro
 - carefully lower fabric onto it and press hard to make good seal between velcro and fabric
 - repeat with bottom horizontal velcro
 - remove paper from a side strip of velcro and seal fabric to it
 - fold ends of vertical velcro 40mm from end, 20mm from edge of fabric, sticking it back on itself and overlapping the fabric 20mm
 - staple the ends through the fabric twice
 - repeat on other side
 6. secure velcro adhesive: press smooth plastic tool strongly into velcro all the way around the blind to ensure total adhesion
 7. if using a black seal with 25mm velcro:
 1. grabbing a velcro tab at corner of blind, carefully remove it from wall
 2. study the section view of the seal in the plan. Make seal: a thick folded roll resembling the drawing, 10mm wide, 5mm thick. Hold roll together with a tiny amount of glue. Put it under board while it dries.
 3. to attach seal to wall, attach seal flap to hook of velcro or glue thick black fabric strip just inside the velcro all the way around. It must be twice as thick as both sides of velcro combined
 4. put blind back on wall
 8. Voila!

roller blind

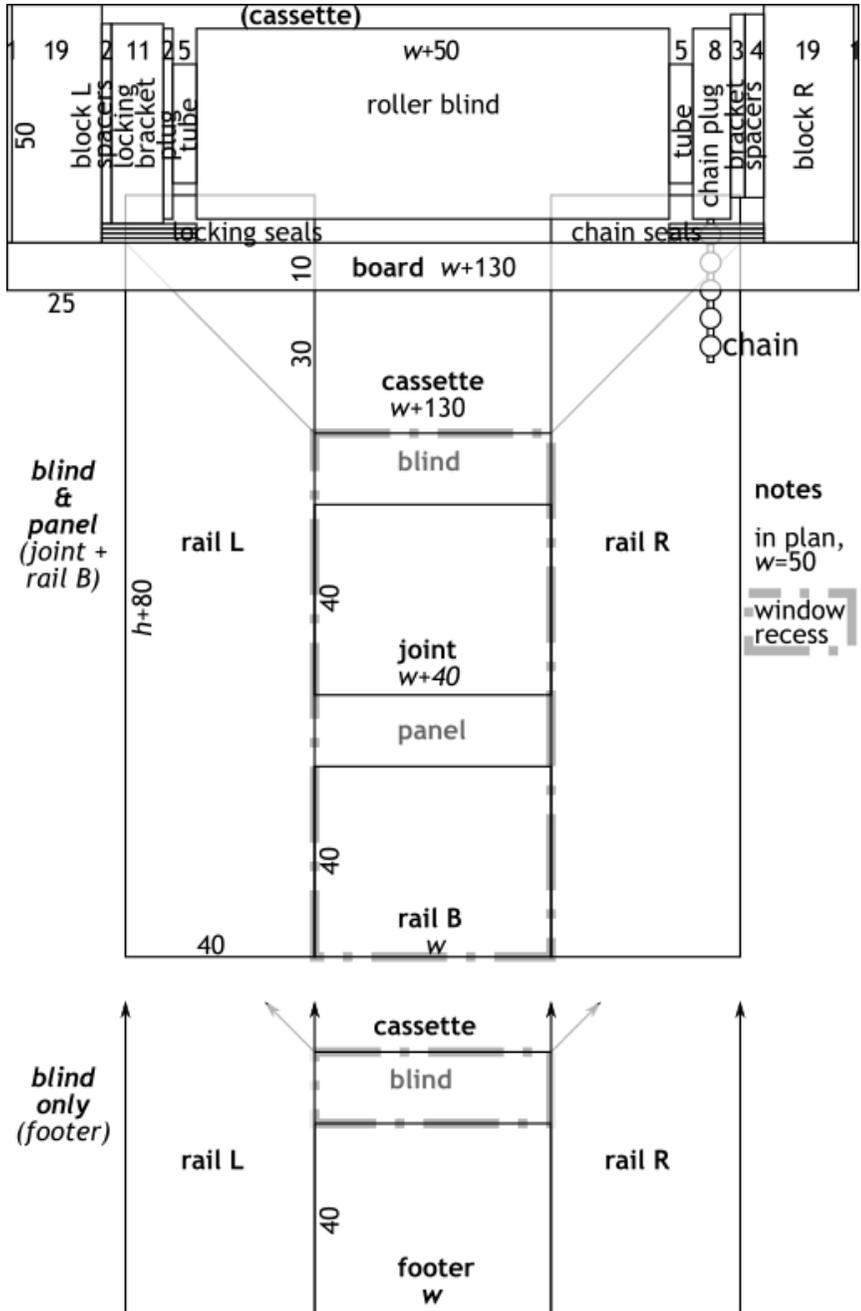


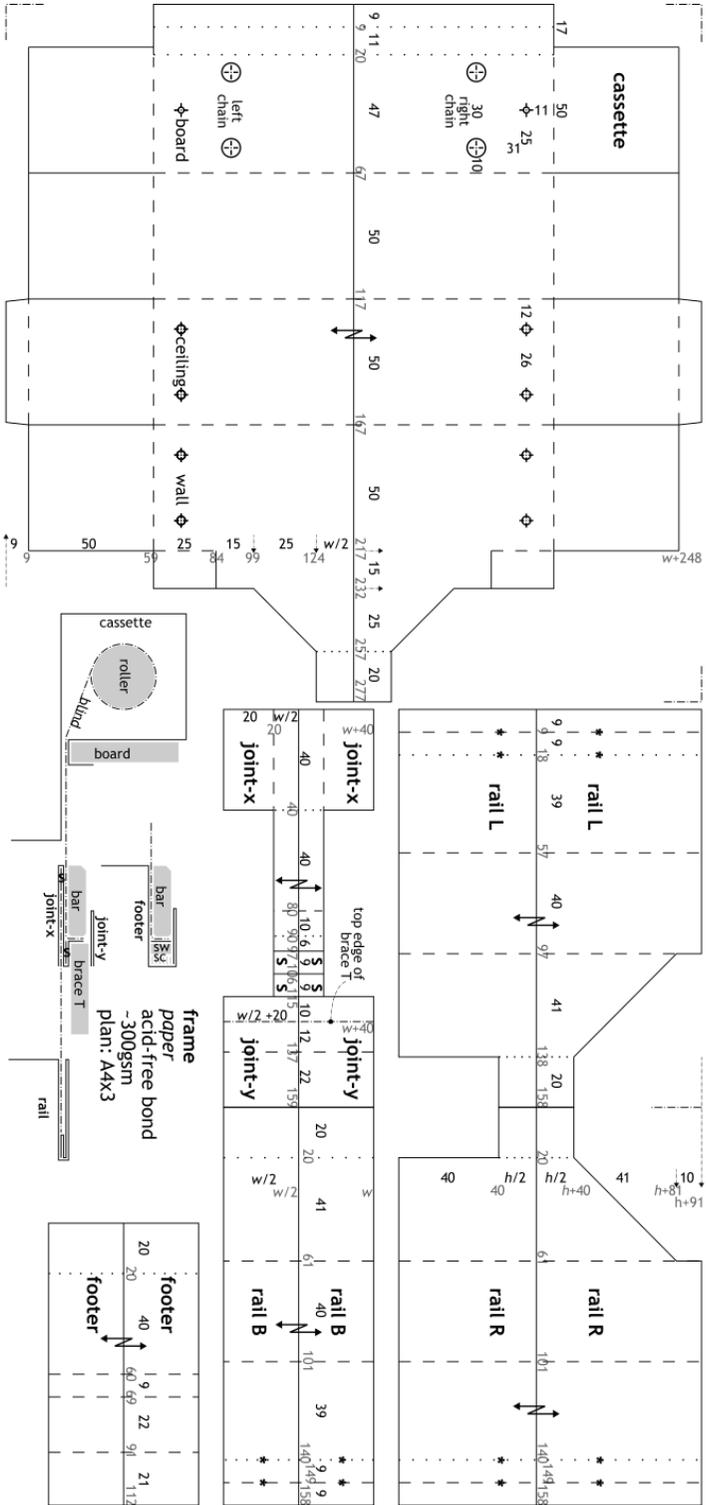


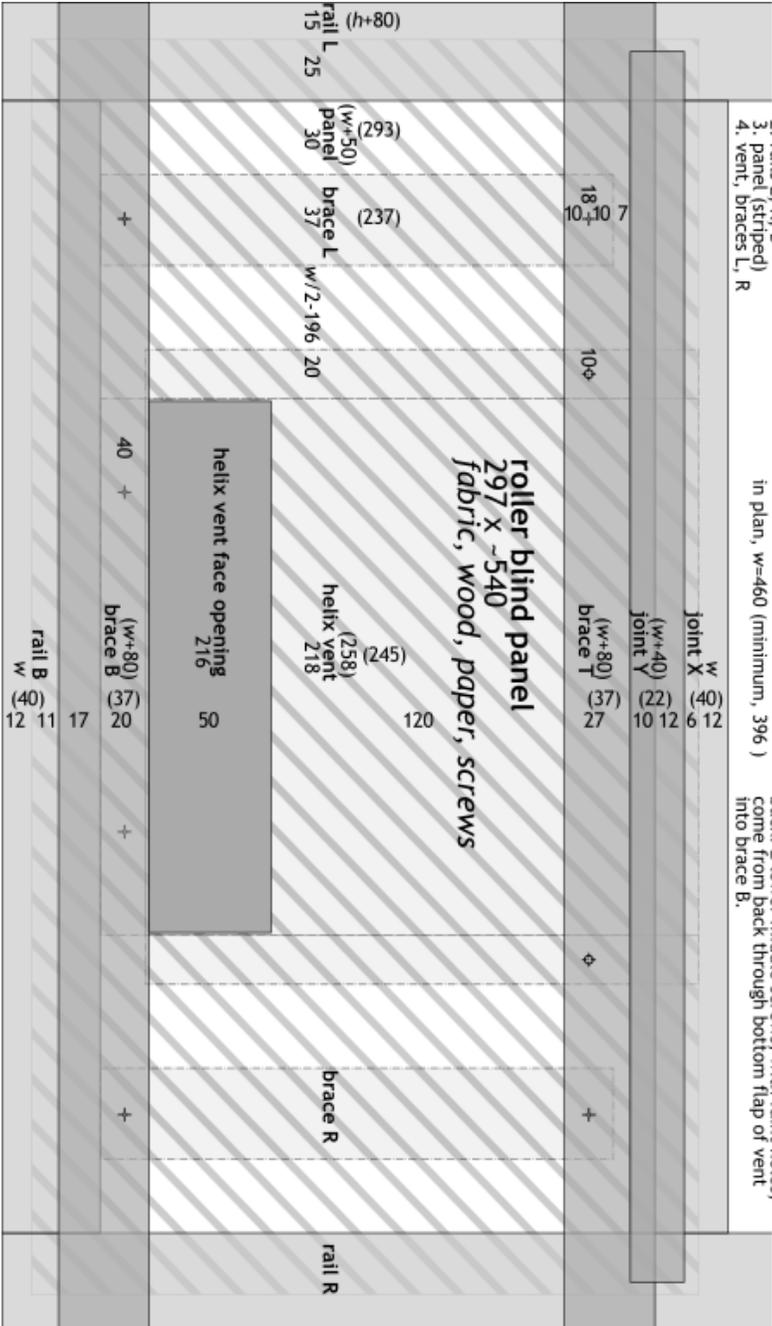
This design takes considerable time. I've built it only once. The price of manufactured fully sealed blackout roller blinds annoyed me so much, I wanted to see if it could be done for a

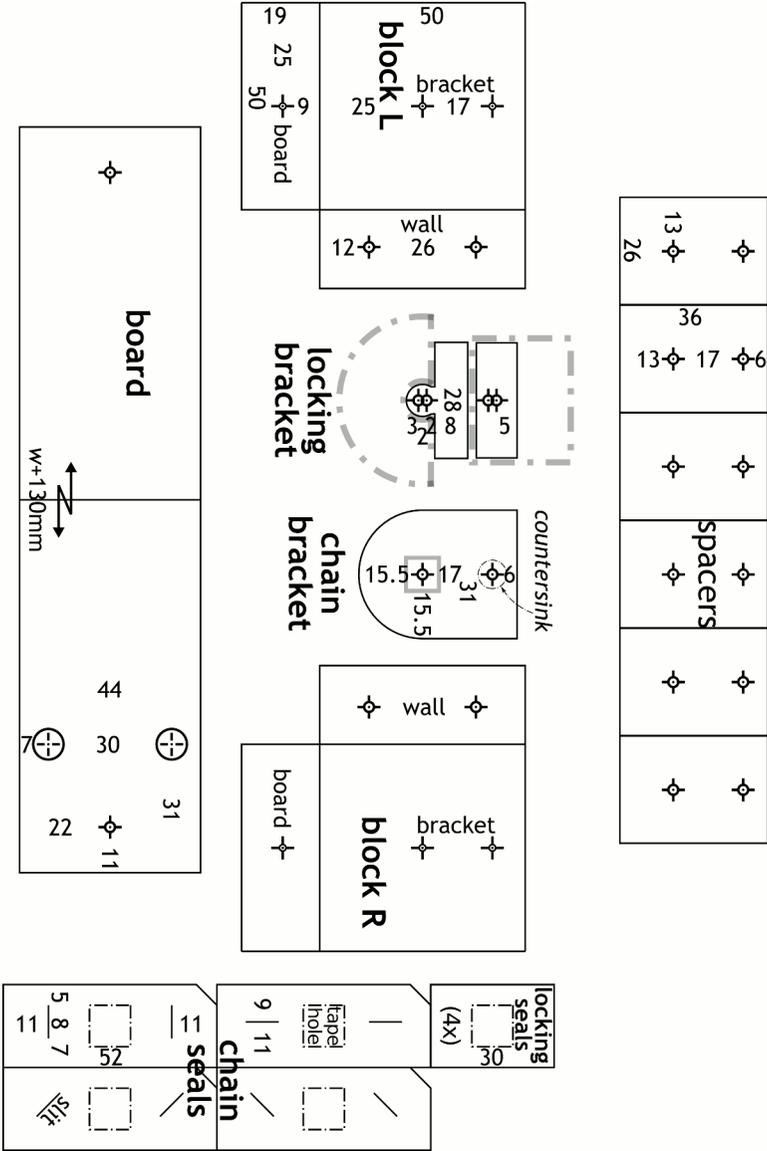
tenth the price.

- the blind mounts on wall. The design can be adapted to mount on the ceiling or top-sill. If you need this, DIY or write me.
- use key to decipher plans
- measure window on all four sides. Windows are rarely identical or perfectly perpendicular
- *h* (italicized): height of recess, measured between T and B sills. Measure both sides.
- *w* (italicized): width of window recess, measured between the side sills. *w* changes slightly top to bottom. Measure top for cassette, bottom for rail B or footer, and 170mm up from bottom sill for joint. *w* of blind itself should be narrowest of 3 measurements.









- materials
 - white IKEA Tupplur blackout blind, enough for double layers (don't get black; the coating seems to be thinner and actually leaks more light)
 - black fleece (*locking seals* and *chain seals* may not be necessary. Try without them first.)

- paper
 - * acid-free
 - * ~300gsm bond or coverstock
 - * either black or any color with 100–120gsm black paper lining (lining not in design)
- wood
 - * braces: 35-50W x 6-12D (plans are for 37 x 7mm; adjust as necessary)
 - * bar: w-10L x 30W x 6-10D
 - * board: w+130L + 44H x 8-12D
- cardboard, single layer, 4.2mm thick
- caulk: cheap, semi-adhesive, and dark stuff that you can easily cut through and scrape off when removing blind without damaging it
- cassette
 - choose left or right chain
 - the *block* pattern on parts page lays on a block of wood, 50 x 37 x 19
 - spacers are made of credit cards or similar ~1mm thick material. Make more or less as necessary
- roller blind
 - to cut: roll it neatly, measure and mark where cut will be, wrap a piece of paper around so edge lines up with mark and tape in place, cut through layers of blind fabric with razor knife all the way around
 - chain: to get it through board
 - * cut it and overlap and splice it back together with sewing thread (for blinds shorter than chain, where splice needn't pass through chain anchor. Chains can also be lengthened with cord; just position chain in gear of chain bracket so blind stops rolling up and down before cord enters gear.)
 - * or cut board from each hole to edge of board
 - * use bottom chain anchor as usual.
 - mount on wall with caulking and blocks
- frame

- cut frame patterns in half horizontally through the zigzag arrow
- stretch them apart to match window size as defined by w and h .
- for frame pieces longer than paper
 1. butt pieces of heavy paper together (put edge to edge, not overlapped)
 2. join with 20mm wide strip of 120gsm paper and glue
 3. then mark/crease/score/cut
- gluing
 - * when gluing footer or joint, glue paper to brace/bar first, then glue other folds
 - * glue one set of folds at a time, 2-3 sets in each rail/joint/footer
 - * use smallest amount of glue possible (test to see how much is sufficient)
 - * immediately clamp pieces
 - * when you glue final fold of rails, you must put something non-stickable between the layers, against 9mm spacers, to prevent 40mm wide areas from sticking together.
- joint
 - * SW=spacer wood. Dimensions when installed ($H \times W \times D$) $w \times \text{bar } D+1 \times \sim 4$
 - * SC=spacer cardboard: one layer or maybe two layers joined with tiny dots of glue
 - * $SW+SC=10$
 - * black line between SW and bar is layer of black paper glued to SW
- mount rails with caulk on corner of sill and wall/trim
- panel
 - carefully transfer hole & slot marks from plan to fabric & braces
 - cut slot and attach vent to panel
 - glue braces L & R to back of panel
 - screw braces T & B to front of panel into holes of braces L & R with 5mm wood screws

- drill 4mm middle holes through brace T and vent shell flaps
 - remove brace T
 - slip panel into rails. Shoehorn it in with 50mm wide paper strips
 - re-attach brace T, 4mm machine screws from front in middle holes with washers and nuts at the back
- panel alternative for short, wide windows
 - put vent in a tall narrow panel at one side of window. Put a 60-80mm wide vertical frame member into the window recess 305mm from the side closest to your bed. Make a 365W x h+60mm wood panel. Cut vertical slot in it for vent. Install vent. Point edge opening toward window recess. Screw panel to wall and frame piece with 20mm strip of black fleece as a gasket.

Uncovered edge of vertical frame member holds rails for roller blind that covers remaining part of window. To keep blind in place when wind blows too strong, stick pushpins through rails and blind every 200-300mm. Always use same holes.

~/~

That's darkness. Now for managing water and waste in a darkroom.

11 - water

If you already have a bathroom and kitchen you can darken easily or mostly, and you can get to it, at least with a blindfold, great. If not, make the quick, cheap, portable fixtures below. If basic versions are too punk rock for you, try the upgrades. You can incrementally improve them as you find out for yourself the value of retreating.

sink

basic

- bucket with lid, 10-25L
- 1-2L soda bottle with cap, filled with water
- loosen cap slightly
- squeeze bottle over bucket, with or without lid. Use one hand or put it between your knees for hands-free use
- wash hands or food
- slide lid off bucket to drain water into bucket
- putting food waste in the bucket helps keep the smell down

upgrade

- table
- rectangular plastic basin, like a restaurant bus tub
- short stand, 30h x 30 x 40cm, behind basin
- 10 or 20L bottle with valve-cap on stand
- drinking water (if separate from wash water): in 20L bottle with valve-cap
- waste (water and food): two, 20L buckets with lids

deluxe

- salvaged sink set in a counter-height table
- drains directly into waste bucket
- upgrade again by adding a drain tube to outside.

toilet

basic

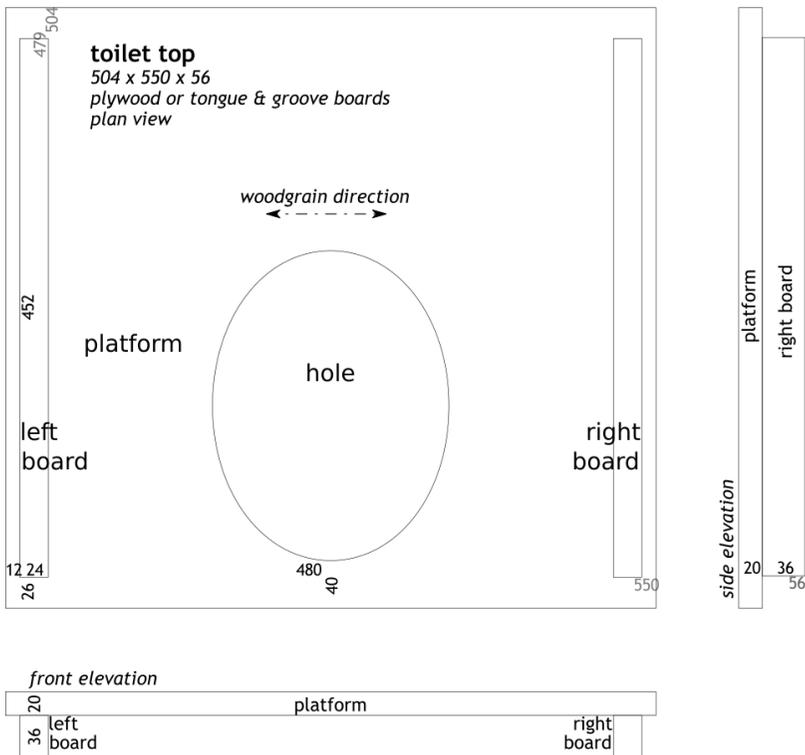
It's a 20L bucket with a toilet seat on top. No kidding.

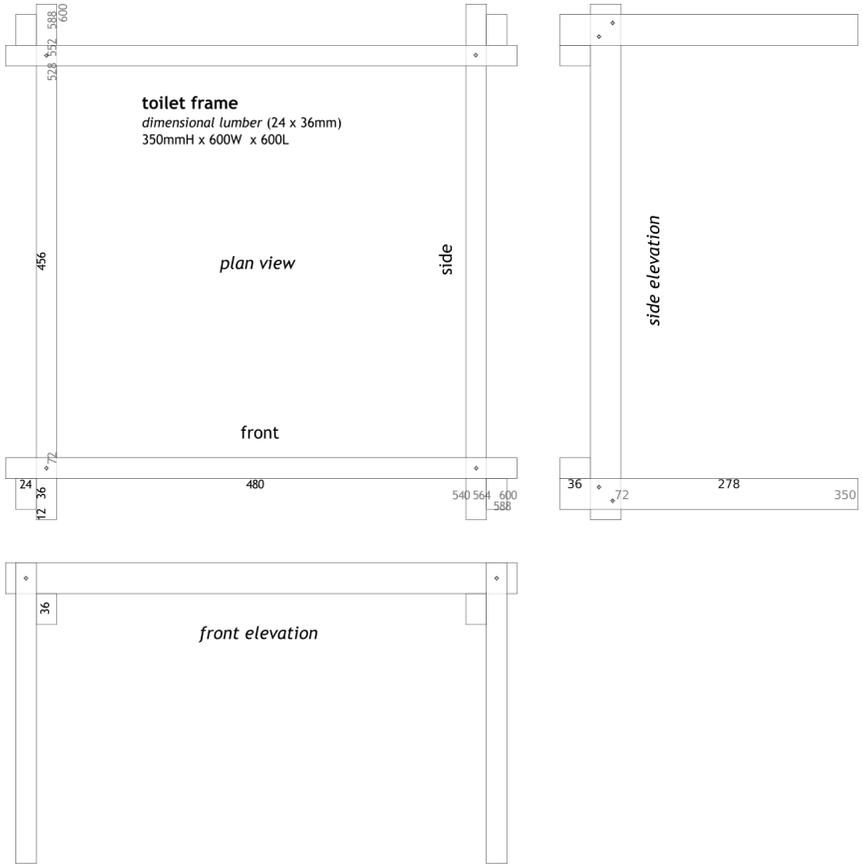
- put 2 liters of sawdust in the bottom
- put 15 liters more sawdust in another bucket by the toilet
- with a scoop, put a 0.5L of sawdust in toilet after each use
- place toilet away from bed and close to return vent
- dispose of in a covered compost pile:
 - include food scraps
 - alternate with layers of carbonaceous material like leaves, straw, sawdust
 - let it sit for a year before use
 - cover with dirt and plenty of carbonaceous material
- replace toilet paper with water to ensure cleanliness and prevent abrasion and infection
 - fill a 0.5-1.5L soda bottle with water
 - loosen the lid slightly
 - hold upside down, with lid against lower back
 - squeeze to get a small stream of water that runs straight down crack over anus
 - wet fingers of free hand and wash anus
 - wonder how you ever accomplished this task any other way

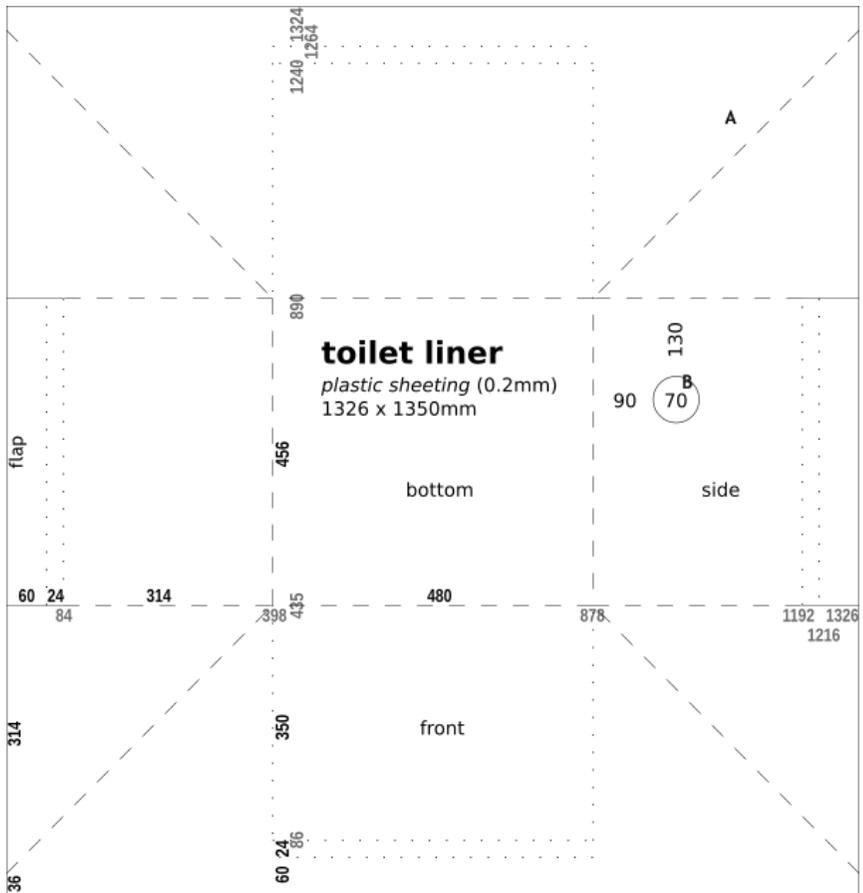
upgrade

A 20L bucket sits inside a box with a hole in the top. The return duct attaches to a hole in the side of the box. So all air exits the room through the toilet, containing all odor. Bucket also collects pee, so empty it every 3-5 days. Making a vented urinal or a toilet that separates pee from poop is possible, too.

Overall dimensions: 35cmH x 60W x 60D







- top
 - platform made of 15-20 tongue and groove boards or 12-20 plywood
 - front and back boards, ~24 x 36, go under platform to fit on top of front and back frame pieces and between frame legs
 - hole is at least 20mm smaller than bucket opening all the way around
 - attach toilet seat to top
 - reinforcer only for tongue and groove boards, directly behind toilet seat mounts
- frame

- made of 24 x 36 lumber
- joint is extra strong, non-planar joint (see gridbeam.com)
- black dots indicate heads of screws. Always drill pilot holes for screws.
- adjust leg height to allow a 15mm space between top of bucket and underside of toilet top
- liner
 - made of thick plastic sheeting (0.006" or 0.02mm)
 - folds into an open box
 - resulting triangular gussets in corners **A** fold against outside of liner
 - liner fits inside frame
 - top edges fold over horizontal frame pieces and get thumbtacked in place on outside
 - toilet bucket goes inside air and waterproof plastic liner
 - cut hole **B** for return duct
 - * 30mm smaller than return duct to stretch and fit over it snugly
 - * so duct is 50-100mm off floor and next to a frame leg (attach a bracket to support duct if necessary)
 - * fold nearest gusset away from hole
 - * hole **B** in plan is just an example: 70mm diameter hole for 100mm diameter duct

bath

basic

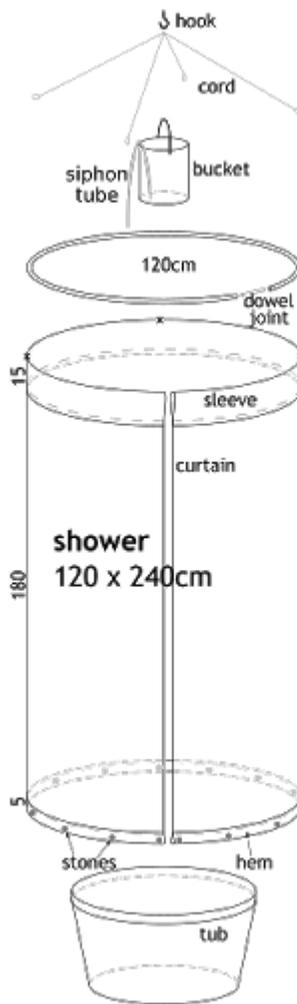
A washcloth or sponge for a sponge bath

upgrade

- on waterproof floor (or covered with large plastic sheet) make a 2m diameter border of towels and sit in the middle

- put shower water in two 1.5L soda bottles with loose lids or nearly closed drinking spout lids
- hold a bottle above yourself with one hand and wash with the other
- wipe up water with towels and squeeze it out into bucket

deluxe



It's a simple shower which collapses for storage, requiring no pipes and little water. Parts from top to bottom:

- hook (in ceiling, 50mm)
- bucket or bottle (4-8L, hangs from hook by handle)
- siphon tube (polyethylene, 4mm ID x 50cm, bent near its middle with heat to hook over rim of container)
- 4 cords (hung from hook, tied to curtain rod)
- curtain rod (common irrigation tubing, black polyethylene, 30mm OD, circular, 375cm long for 120cm diameter, dowel inside ends for smooth joint)
- curtain (polyester or plastic sheeting, with 15cm sleeve for rod (as shown) or grommets and rings, 5cm bottom hem with small river rocks inside to weigh it down)
- x=holes in curtain for cords to tie around curtain rod
- large tub (90L+, from garden supply store, catches everything at the bottom. Could also be a large, deep tray or pan.)

Solar water heating method: use clear 4-8L drinking water bottles with rectangles of black plastic sheeting inside to act as elements. Have supporter give it to you when hot. Or, with dark clothing and sleeping mask on tight, grab it from a sunny spot.

Adjust water temperature with cold water to suit yourself. When ready to bathe, suck on the tube to start the siphon action. Water flows for eight minutes. Not bad. Dump used water into a 20L bucket with a lid for later disposal.

Adjust shower length and water flow with different size containers and tubes. Make sure hook can hold the weight.

~/~

That's the state of my art of low-cost DIY darkroom design and construction. Check back for the latest developments. If you design something simpler, faster, cheaper, more effective, more elegant, or just different, please let me know. See [introduction > open-source](#).

Thank you for reading my book. I hope it helps you find yourself and feel joy.

faq

mechanics

- *Where can I go to retreat?*

If you can, I recommend making darkness happen first in your own home for sleeping, then for a 4-day retreat, maybe 8. Once you've learned the ropes, make another darkroom in the countryside or go to a public darkroom for a medium retreat (3-8 weeks). There are 50 of them worldwide and counting. Most are spiritual and therapeutic centers. I think most will support hygienic retreats if you ask and know what you are doing.

- *Do you eat in a retreat?*

Yes. Food and water are always available. I recommend fresh fruit and tender leafy green vegetables, in accordance with the frugivorous nature of human anatomy and physiology.

- *How many people retreat at once?*

One. The point of this retreat is to rest, heal, and recover oneself. There is nothing more stimulating and distracting than other people.

- *How do you do things in darkness?*

Very slowly. And after becoming familiar with the room and making memorable places for your belongings before turning out the lights.

- *Could you just retreat with a sleeping mask?*

No. The skin has enough light receptors to awaken you from sleep. Masks do not stay in place, so they leak light. They are not comfortable for extended use. And you still need a properly ventilated room, minimally furnished to eliminate dangers, distractions, and associations.

Sleeping masks are good for travel, naps, and sleeping until your bedroom can be darkened. Also, for walking through a semi-lit space between a darkroom and a bathroom in dwellings where this is necessary.

- *Is it like meditation?*

In essence, no. On the surface, the two processes have some similarities. Each involves less physical activity. Attention gravitates from the world to oneself. But what goes on inside oneself radically differs.

Meditation is active, ie, the will drives the process. Willed activity is the primary process that goes on. The purpose of meditation is to make the unconscious conscious, or to compel the conscious to submit to the unconscious. It is a quiet internal war.

Darkroom retreating is passive, ie, the unconscious drives the process. Unconscious activity is the primary process that goes on. Willed activity is secondary, The will is servant. The purpose of retreating is to rest so the being can restore itself to wholeness naturally. It is peaceful.

These subtly different drivers and purposes have massive effects on one's experience and results. As extraordinary as the process and results of meditation and spiritual practice can be, they still pale before the power of the autonomic self.

concerns

- *Is total extended darkness safe?*

Yes, if you do it correctly. This is uncomplicated. Dangers are easily avoided if you know what they are. I have identified four ways to retreat incorrectly. See my [warning](#).

- *Wouldn't you go crazy staying in darkness that long?*

Just the opposite. We are already crazy. We heal from it in darkness. Our craziness does become more apparent in darkness as the organism heals from it. This can be uncomfortable, painful, and frightening, like the traumatic causes of craziness. But simply having feelings is not dangerous. The room is safe and comfortable. Supporters are at hand.

You would only go crazy in darkness from being *forced* or trapped there, as in prison or a caving accident. A retreat is a choice based on reason. You and your supporter each have a key to the door.

- *Do you get bored?*

Yes. It is a very good sign. Sometimes your autonomic self works on something so damaged, painful, and draining that the psyche has had to completely shut off feeling to it. It becomes an internal black hole. Boredom means you are approaching it and that recovery of a lost part of yourself is imminent.

- *Four days is a long time to do nothing.*

If you mean sitting around “doing nothing” under regular circumstances, yes. But that is an activity. It doesn’t count. Darkness is different. We enter a different state of mind. You are incredibly interesting. You will rediscover this when you finally have enough time in the right place to be with yourself while doing nothing. Everyone is a little worried about this at first. But after days of delicious sleep and time to themselves, most wish they could stay longer.

We’ve been told being idle is bad. But neither is being productive all the time a virtue. Generally, people overwork and overconsume. Enough, already. Moreover, we’ve all spent more than four days doing destructive things. Doing nothing would have been a big improvement, to say nothing of the secret benefits.

Civilization has taught us that will is the only useful driver of activity in the being. But without autonomic activity, we would be poisoned to death by our own internal waste in seconds. Still, we are told if we are not busy, then we are bad. Only doing things by wilful effort is respectable. Nevermind that when it comes to restoring psychic integrity (every animal’s greatest value), the will is nearly helpless and the autonomic self is infinitely intelligent, capable, and graceful.

If you mean it sounds pointless or dreadful, in fact a retreat usually begins with a sense of relief. Discomfort may come. But then you make contact with your autonomic self again, and this is extremely meaningful and enjoyable.

objections

- *I could never do a darkroom retreat.*

At the moment, your doing a retreat is out of the question. You cannot do it if you don't want to, you cannot want to if you don't believe in it; and you cannot believe in it if you don't know enough about it. So, for the time being, forget about doing it. The only thing that matters is, does it interest you enough to learn more about it? If so, then I can recommend a good book on the subject.

- *Isn't total darkness unnatural? Shouldn't we be exposed to stars and moon at night?*

No. First, our natural habitat is tropical forest. Its dense canopy makes the forest floor perfectly dark at night. Even when sleeping in the open, the amount of light from stars and moon is surprisingly little compared to artificial light. Which now bombards us nearly everywhere.

Second, covering our eyes, seeking solitude, and taking cover when traumatized is a reflex. We have to be conditioned out of it by force. Taking extended shelter as in a darkroom retreat merely supports this reflex when the trauma is great enough to require it.

Shelter is an instinct that intensifies with trauma. Large uncovered windows came to popular architecture very recently. Traditional shelter, civilized and indigenous, is dark or easily darkenable.

Our obsession with building—the principle activity of civilization for 13,000 years—indicates a people in search of extreme sanctuary to self-heal from cataclysmic trauma. When we get especially frustrated, we even have wars to destroy buildings so we can build new ones. Nothing could be more natural to us in our damaged state than extended total darkness.

- *Extended darkness could be good for some people, but there are many ways people can heal their suffering. Nothing works for everyone.*

I wish it were that easy. Then none of this would be necessary. The sad fact is there are many ways to gain temporary relief. Some help us heal from the worst part of our suffering. That is good. It enables us to catch our breath and survive. But

it does not get us near full recovery. It is merely acceptable by our lifeway's low standards.

For full recovery, as with all living functions, nature provides single conditions or specific combinations thereof. We're not talking about which color to paint a house. There is no menu, no smorgasbord of options in physiology to suit one's tastes. To breathe, one must have air. To heal from major trauma, one must have darkness and associated conditions of profound rest. These solutions work for everyone, even other animals. But there is no substitute. Physiology is what it is. Post-modernist dogma doesn't alter it one whit.

We can look at it in the negative as well. If this tired statement were true,

- the "many other ways to heal" would make sense and work
- everyone who tried them would now be ok
- the deep healing necessary in cases of cataclysmic trauma could occur without profound rest
- profound rest can occur in semi-darkness and other compromised conditions
- or psychic trauma is not the primary cause of metaphysical suffering
- or the human organism has no specific needs for recovering from such pain. It is all random. This, despite its specific and universal need of rest for recovery in all other cases. As well as its specific need of light for seeing, food for eating, etc. And despite suffering's being an indication that something is wrong.

Evidence shows all these are false. Again, relativism makes fashionable philosophy but poor physiology. Repeating it changes nothing.

- *If hygienic darkroom retreating is so great, how come you are still sick?*

Is it great?

Anyway, I'm glad you asked. It tells me I have gotten enough of my idea across for you to begin struggling with it. When enough people are struggling with it, a great door will open, and we will sail through.

bibliography and influences

- anthropology, history
 - Jim Woods at Herrett Museum, Twin Falls (with thanks to Janie Brumbach, RIP)
 - *The Songlines*, Bruce Chatwin
 - *The Continuum Concept*, [Jean Liedloff](#)
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 - *Ishmael*, [Daniel Quinn](#)
 - *Where White Men Fear to Tread*, [Russel Means](#)
 - [Prosper Waukon](#), Winnebago entrepreneur
 - *Running on Emptiness: The Pathology of Civilization*, [John Zerzan](#)
- psychology
 - *Magical Child Matures*, [Joseph Chilton Pearce](#)
 - *Birth Without Violence* Frederick Leboyer
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 - *Mass Psychology of Fascism*, Wilhelm Reich.
 - *Fury on Earth*, Myron Sharaf, biography of Wilhelm Reich
 - *Pleasure*, Alexander Lowen, a faithful student of Reich
 - *Banished Knowledge: Facing Childhood Injuries*, Alice Miller
- philosophical and spiritual traditions
 - my parents, John and LouAnn, and brother, [Paul](#)
 - *Atlas Shrugged*, etc, Ayn Rand, preceptor
 - [Tantric Hinduism](#) with guru, [Purna Steinitz](#)
 - *In Search of the Miraculous*, Ouspensky (Gurdjieff's basic teachings)
 - radical orthodox Christianity with DeWaynn Rogers (late legal counsel, enigma, and possibly Teacher of the Age)

- animism from nature, books (above), elders (scoutmaster Jack Asher; godfather and mentor, [John Boyer](#)), extended family, and friends
- health
 - my parents
 - initiated into Natural Hygiene by [Frederic Patenaude](#)
 - *Do You Really Need Eyeglasses?*, Marilyn B. Rosanes-Berrett
 - *Fit for Life*, Harvey and Marilyn Diamond
 - [Science and Fine Art of Natural Hygiene](#), Herbert Shelton
 - *The 80/10/10 Diet*, [Dr Douglas Graham](#)
 - *Introduction to Human Technology and Human Technology*, William Arthur Evans (thanks to friend, Sterling Voss, for finding this rare work)
- design and art
 - my parents and brother
 - grandelder and grandmaster craftsman and engineer, [Jack Nuckols](#)
 - childhood teacher, Steve Parks (Horizons School, Twin Falls)
 - accompanist and mentor, [Willetta Warberg](#)
 - *The Dark is Rising*, Susan Cooper
 - *The Natural House*, Frank Lloyd Wright
 - *Selected Poems*, Robert Bly
 - *BuckyWorks*, Jay Baldwin (about Buckminster Fuller)
- experiences
 - 1 week of humane society at Sawtooth Methodist Church Camp, Idaho, Joanie Williamson, director, 1985
 - 3 months enraptured, Idaho, 1987
 - 23 days fasting in California desert, 1991
 - 1 week at Rainbow National Gathering, Idaho, 2001
 - 60-hour darkroom retreat supported by elder, [Finn Po](#), Oregon, 2006
 - 10 days in audience of Advaita grandmaster, [Arnaud Desjardins](#), Montana, 2007

- 8 seconds in dreamtime with elder, [Adrian Wolfe](#), Oregon, 2008
- 18 months with the Maya at Lake Atitlan, Guatemala, 2011
- 2 months of life-altering sex, Sweden, 2012

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editors

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- Magnus Vanebo, philosopher, for enthusiastically diving into the text and sensitively editing it

Also,

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family

Immediate, extended, and adopted: I leaned on all of you that would let me. It can't be easy rearing a stubborn 20, 30, then 40 year-old psychotic infant in a world that denies everything real. Thanks, especially, to:

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- Cousin Christopher, for your generosity and grit
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...for friendship, support, and/or raising the bar so high that anti-gravity boots became necessary. And especially:

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Each of you gave me the world.

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since darkness

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end

I called some people here guides, but anyone who hosted me also guided me. I've needed a lot of help for a long time. Everyone on this list put a lot of time and energy into me and my work.

I also made enemies and hurt some people along the way. I'm sorry it didn't go the way we thought at first. Here's hoping it was not in vain.

Acknowledgments in books usually bore me. This one I cannot reread without weeping. Onward, then, till the task is complete.

services

I do nearly everything related to hygienic darkroom retreating: study, experiment, write, speak, consult, design, build. At the moment, I am not operating a darkroom or supporting retreats. For that, find darkroom retreat centers on this cool [global map](#).

writing

- Get my ebook from [leanpub](#)
- Quote and excerpt anything in my book and website. Credit me and tell me where it will show up and I will also acknowledge and link to you on my website.
- Invite me to write for your publication on any subject related to hygienic darkroom retreating and hygienic psychology.
- Publish me, make money. See [license](#)

(Free or as you please)

speaking

Invite me to edify your audience.
(My minimalist expenses + something that fits your budget.)

consulting

Get my advice on darkroom retreating, building darkrooms, and issues arising thereof.

(€25/hr. First couple emails are free if you have read my book.)

I will respond in detail, by email or skype, to all your questions and concerns about:

- how, where, and why to set up a darkroom
- how to organize a retreat with a supporter
- how to deal with specific issues you have personal and about retreating itself

My responses will be based on my experience. Over the past ten years, I have:

- done 25 retreats from 2-6 days long
- facilitated 25 retreats for others
- designed and built or upgraded 21 working darkrooms, operating three of them, consulting remotely on three more, all in three climates on four continents
- written 150,000 words about darkroom retreating for web, email, and print
- given 14 public talks

design-build

Have me design and build your darkroom in an existing building or from scratch.

(€25/hr + materials, travel, and shelter)

license

Welcome to the political-economy of *cool*, where you get rewarded for cooperating, not threatened with punishment if you don't.

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See [home page > help out](#) for how to send me money.

Basically, this means you can instantly become my publisher or manufacturer! These deals roughly equal what

you and I would make if I were published or self-published and you were simply selling the books, yet without your having to order from me in bulk, pay shipping, keep legally complicated records, or sign a contract.

The idea is to make the book and components available with minimal friction in every way, at every level of distribution, so that we all can retreat asap and make reasonable livings as we go. If anything about this license seem to conflict with these goals, please let me know.

We now possess the means of recovering the whole self, the source of all wealth. Applying it even slightly will make money irrelevant. Let's be cool and have a good time with this.

participate

Join the dolphin economy: I help you help me help you...
Here is how:

- apply
 - darken your room
 - retreat according to this method at home or at a center
- interact
 - send me a question or comment
 - buy this book after reading it if not before and you find it useful
 - report your experience online with photos and send me the link
- engage
 - tell me about spelling and grammatical errors you find in the book
 - improve the website
 - improve the method and designs; see below
 - publish the book; see [license](#)
 - invite me to speak at an event
- further
 - help me organize a retreat so I can heal from my own psychosis
 - do something not listed above, perhaps what only you know about or that we could develop together

More regarding improvements:

If you find a theoretical or practical error in the approach, or a way to improve it, please let me know. I am happy to alter the book if your proposal:

- presents a rational argument
- remains consonant with hygienic principles

- includes clear reports of your own reproducible experiments with the current method

Likewise, I would like to work with you in any way to develop hygienic darkroom retreating and advance its cause as long as you:

- have read my book
- demonstrate understanding of its basic ideas
- have done a retreat according to my protocol and are convinced of the value of my approach

Cheers.

bio

Born 1971, Twin Falls, Idaho. From age 16, I searched for the cause of joy. I independently studied philosophy, health, and design. I tested my findings while traveling America, living outside or in small groups, doing odd jobs, playing music, and building alternative shelter.

In 2008, my quest culminated in [*the darkness conjecture*](#), a concept of the restful use of darkness in support of the self-healing psyche. Since then, I have been:

- proving the concept
- designing and building darkrooms and supporting retreats in Guatemala, Sweden, Norway, Spain, and Czech Republic
- giving lectures and consulting for readers
- refining and documenting my work at darkroomretreat.com.

Now I seek a way to fully apply it in a 20-day retreat in order to heal from my own psychophysical illness.

contact

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Also see [*services*](#)