

The Role of Color in Humanizing Correctional Facilities

Written By Tara Hill
Commissioned By Norix Group Inc.



WHITE PAPER

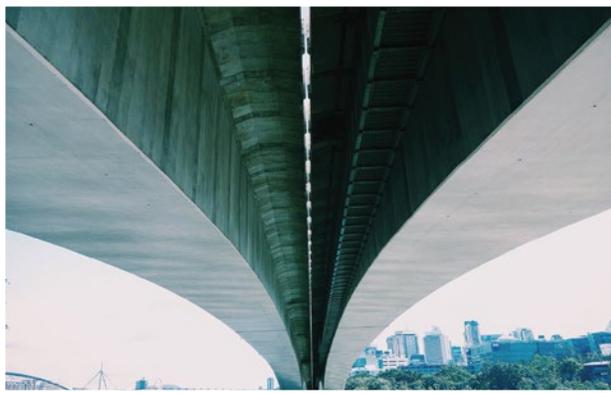
WWW.NORIX.COM

EXCITING TIMES FOR SPACE DESIGN

These are exciting times to be an architect, designer, facility planner and industry partner such as a manufacturer, supplier or contractor. For the past decade, there has been an earnest, research-based approach to better understand the connection between our environments, their planning and design, and the human within. With this, we also better define the true end-user and communities our buildings serve. Leading evidence-based research studies, compelling peer reports, post occupancy statistics, and unequivocal staff and end-user testimonials are deeply informing our designs, leading to measurable positive outcomes. Thus today, we better understand that space, inclusive of every component within it, cannot be separated from the humans for which it serves. Even more so, we know both operational aspects and aesthetic design elements can be leveraged to work in tandem to promote human well-being and safety. At the same time, these design doctrines are reducing waste and safeguarding operational and administration costs. Proudly, many of us in the planning and design industry have been instrumental in this transformation, particularly with institutional space design that either demotes or promotes their occupants within. Many now understand the power of design that is curated from a tightly dovetailed knowledgeable team working towards defined, human-centered goals and the importance of championing these “good design” principals through each step of implementation.

Even more compelling, many industry professionals are promoting these evidence-based design philosophies overseas and into less mainstream United States markets like corrections, behavioral healthcare and facilities that house the underserved. For these often overlooked populations, insightful industry professionals understand their specialized needs and the critical issues these rigorous spaces face. They also understand the critical economic and societal struggles these industries undertake as rapidly shifting governmental policies further shake their foundations – a footing which is already bending under mounting strain. However, these same planning and design professionals are confident they can make a significant difference to promote safety and staff performance, while also safeguarding costs and the communities we all live in.

So how will this be accomplished? Much to our delight, interior elements in rehabilitation settings, including those in corrections, are becoming more human centered, expressive and comfortable. Officials that oversee spaces with higher security and confinement needs – those literally made of hard concrete and steel – are now leveraging nature, color and softer furnishings in these intensive-use



facilities. Regarding color, palettes are beginning to tie back to local nature and designers are applying hues with intent through the use of surface paints, flooring products, furnishings and even large mural artwork. In doing so, these same professionals are creating visually softer and more interesting interiors. Taking cues from healthcare’s people-centered interior findings, correctional planners and designers are striving for positive measurable outcomes, even those that cannot always be explained by empirical research or observational studies. Many designers

of these harsh institutional spaces are recognizing a need to push hard to dignify these environments in attempts to boost their morale, encourage positive social engagement, lower inmate tensions, improve staff safety and reduce America's recidivism rates.

But how you might ask?

WHY DOES CORRECTIONAL SPACE DESIGN MATTER?

To understand holistically how correctional planning and design professionals are making a difference, we must first review the overwhelming present and future challenges facing corrections and the need, many feel, to self promote and normalize the occupants within these walls. When considering architectural design that calms and provides wellness, this may seem more applicable for healthcare. However, correctional facility managers, officers and healthcare staff quickly voice that they have an immediate parallel need to secure better inmate and staff outcomes and experiences.

Mostly known by only a niche group, the demographics of corrections have dramatically shifted over the past three decades. Considered the world leader in incarceration, the U.S. has 2.3 million people currently imprisoned or jailed.² This country incarcerates 25 percent of the entire world's population of prisoners but only accounts for 5 percent of the world's total population.¹ In 1980, the population within U.S. prisons and jails was a far lower count at 502,000 – one fourth of where it sits today.² According to the Sentencing Project, "changes in sentencing law and policy, not changes in crime rates," mostly explain this increase.² This has led to a rapidly changed inmate demographic, severe prison overcrowding and the responsibility of individual states and the federal government to dip into their budgets like never before. That equates to capturing, incarcerating and punishing at a rate that many argue far exceeds our ability to do so. Females are being arrested at 1.5 times the rate of their male counterparts and require specialized needs that differ from men.^{2,3} Simultaneously, antiquated state mental health facilities are closing, and recent reports indicate 50 percent or more of inmate populations struggle with a mental illness or substance abuse disorder.⁴ With these changing demographics and an aging inmate population, correctional facilities need to accommodate needs that arguably fall into a specialized healthcare category.⁴ With this, state fiscal expenditures for corrections rose from 6.7 billion in 1985 to a staggering 53.3 billion in 2012.⁵

Additionally, in 2014, 16 U.S. states reported experiencing acute overcrowding and budget shortfalls for the needs of their prison and jail populations.⁶ These states are facing a current conundrum of whether to increase their correctional funding, which means building more rapidly, or relaxing their tough-on-crime policies.⁶ A third option would prompt federal and state governments to better understand, through data-driven resources, what aspects lead to crime, and more importantly, how this data can be leveraged, partially through space design and smart programs, to reduce our nation's alarming recidivism rates.⁶ Either way, as our correctional system bends under the strain of public demand to punish, with many preferring harsh punitive environments, state budgets break and many believe these harsh interiors increase recidivism rates. An additional concern surprisingly not often addressed in articles is the fact that as overcrowding increases, budgets fall short, and staff and inmate tensions rise, many specialty trained staff – from officers to healthcare workers – are reporting that

they feel under supported.⁷ This translates to their feeling “unsafe.”⁷ This is causing many to seek opportunities in higher paying private sectors and leading to a staff shortage for corrections.⁷ Thus, if states do choose to build more facilities, who will operate them and oversee their populations? Correctional staff is on the receiving end of public policy and architects and designers can provide another tool for managing the many populations in correctional facilities—included staff—while at the same time encouraging the rehabilitation of inmates through space design.

THE BALANCE TO ENSURE SAFETY, PROVIDE ADEQUATE PUNISHMENT AND REDUCE RECIDIVISM RATES

All agree that ensuring the public is protected from criminal behavior is imperative, and protecting the invaluable staff inside these walls is an absolute prerequisite. But a big question still stands as we safeguard our communities, correctional staff and vulnerable populations within these facilities:

How can society balance the conflicting needs for security, incarceration and adequate punishment with measurable decreases in recidivism rates or find more resources to pay the bill?

Reoccurring topics of recidivism, rehabilitation and humane treatment of inmates are more forefront than ever before. Regardless of anyone’s personal beliefs relating to proper punishment—generally the hypothesis is that harsh punishment deters crime—we must not lose sight that a large majority of the incarcerated return to their communities. Aside from lifers without parole or death row inmates, both a very small subset, an inmate’s incarceration is strictly temporary. Once released, they are either returned to communities and assimilate by contribution or, if not properly rehabilitated and prepared, they may re-offend and further burden budgets, communities and families.

With this at hand, some experts are asking whether it is time for the U.S., while administering punishment, to provide a humane space and rehabilitative programs that promote the human, preserve their self worth and replace pessimism with optimism.

Many industry experts, working with design teams, are working hard to peer deeper and challenge our society’s beliefs regarding appropriate punishment. They are taking notes from our past to build for our tomorrow. Though not widely applied in the U.S., many experts believe it is time to reinvent these fortresses, incorporate evidence-based programs and space design principles in an attempt to best normalize these spaces, promote human equilibrium, and reduce anger and violence. In doing so, this trend will still preserve the non-negotiable issues of punishment, security and economic safeguards.

ARE OTHER COUNTRIES A MODEL FOR IMPROVEMENT?

The comparison between the U.S. and Western Europe is arguably not apples-to-apples due to varying differences in culture. Nevertheless, officials and designers here are intrigued by these countries' incredibly low recidivism rates and are visiting prisons in Sweden, Denmark, Norway, Finland, the Netherlands, Germany and Austria to learn more.¹ These countries definitively believe overly punitive prisons do not work. Instead, they yield back to communities a broken individual who will likely return to crime. These countries voice with confidence that society can only inherit a contributing member upon release when an inmate was exposed to a "guiding principle of normality" while they were incarcerated.¹ This foundational belief is also combined with a government commitment to ensure released prisoners transition from incarceration to freedom with housing, employment, education, healthcare and addiction treatment (if needed).¹ It is an approach with preventative investment at its heart and an approach many in the U.S. scoff at. On the surface, this avenue may appear incredibly expensive. For some it is ridiculously beyond the pale, until one recognizes these countries are managing recidivism rates consistently as low as 20 percent compared to our glaring 60-75 percent rates.¹

"All persons deprived of their liberty shall be treated with humanity and with respect for the inherent dignity of the human person," are the words boldly scripted on the front facade of *Leoben Prison* in Leoben, Austria.⁸ This maximum security prison is a sleek structure made of wood, steel and glass. Floods of day-lighting give a glassy brightness over every interior surface and, partially due to its sound proofing materiality, there is an uncanny calming silence. Cells have floor-to-ceiling shatterproof glass, secured balconies and are brightly finished with pops of saturated color. Social support spaces include a gymnasium, prayer room and library. Design elements and spaces at Leoben Prison bear an obvious relationship to their whole. Many who learn about these European "right to life and humanity" prisons are gleefully pleased by their benevolence or they are deeply offended by their upscale amenities and access to "in wall" freedoms.

"They are criminals, but they are also human beings," states Leoben Prison's architect, *Josef Hohensinn*. "The more normal a life you give them here, the less necessary it is to resocialize them when they leave."

For Western Europe, Austria's Leoben Prison does not stand in a class by itself. There are many noted, controversial correctional facilities like Norway's high-security Halden Prison in Ostfold and Bastøy Island Prison off the coast of Oslo Fjord that are topping news headlines. They share the premise that the prisoner who has forcibly had their freedom stripped retains all other rights to life that resemble life on the outside to the greatest extent possible. Their philosophies are designed for domestic comfort and individual "responsibility building" and not deprivation and penance.^{1,9}



These correctional spaces typically begin not with “wings” but instead small “pod units” of 15 inmates or less. They provide spacious outboard single bed cells with private toilets, a flat-screen television, a mini-fridge, colorful designer furniture and accent walls, and a large window for scenic outdoor views of nature that also provides floods of natural lighting. With the goal of normalcy being forefront, there is a focus on shared spaces that are designed to encourage heavy social interaction and forge valued relationships built on trust and respect.^{1,8,9} These support spaces include seating and recreation tables, shared kitchenettes, large flat-screen televisions and inmate access to outside contemplative gardens. They are often free to roam as they choose. The designs leverage vibrant pops of cheerful, expressive color, bright natural lighting, soft inviting furnishings, warm finishes and even decorative artwork, light fixtures and millwork hardware throughout the facilities. All are blueprinted with intent and undeniable evidence-based principals – derived from prominent U.S. research findings – at their core to promote human well-being within institutional settings. Therefore, these facilities are also objectively designed as a working system of elements, all needed to be present in order to drive successful outcomes.^{1,8,9}

So, is this the solution for the U.S. correctional system? Undeniably, this Western European approach to punishment is in stark contrast to that in this country. These European prisons shock the senses for all who want to see justice delivered in harsh, punitive terms. Given our differences in culture and economics, we have a very different criminal component and inmate demographic to wrestle with in the U.S. But are there learnings and insights to be gained and applied here? Early indications point in this direction and demonstrate that an integrated system of intentional design, with visual interest and positive distraction, is an integral component in effective design.

A LANDMARK U.S. CORRECTIONAL PROJECT

Although the high beams are pointed at Western European correctional facilities, there is in fact an emerging trend in the U.S. where punitive spaces are seen as places that do not deter crime but instead possibly contribute to its reoccurrence. Just like the facilities mentioned overseas, this trend seeks to leverage space design to improve safety, decrease recidivism rates, decrease correctional spending and promote the humans within. To do so, planning and design professionals are targeting aspects within correctional facilities that are institutional, jarring, sterile and unsafe. With rigor, these design experts are creating spaces that punish but are also dignified, visually interesting, softer to the eye and even feel familiar and homelike. Steel and concrete is being coated with humanizing color or completely replaced with less harsh finishes like wood veneers, durable polymers and solid surface. Designers are pushing even further with innovative and very durable carpets, furniture, upholsteries and large nature-focused artwork murals. This humanistic approach has the intent to relieve depression and fears, to reduce anger and calm tensions, and to normalize the inmate environment. Simultaneously it aims at reducing behavioral discord and violence, increasing staff safety and retention, and lowering recidivism rates.

Trend-setting California, also under federal fire and recognizing their disparaging growth rate of female inmates, is leading this charge with Phase One of the *San Diego County Women’s Detention Facility (SDCWDF)* which opened in 2014. When fully complete, SDCWDF will include 25 buildings, 1,216 beds, and 500,000+ square feet of building floor space, including housing units, administration functions, medical facilities, food service areas, a visitor center, learning resource center and accommodations for employment programs. Designed by *KMD + HMC Architects*, this facility is

a marvel and, not surprisingly, has already received an *American Institute of Architect's (AIA) 2013 Justice Facilities Review Award*. The design team started by researching Western European correctional facilities with the goal of comparable results to occur at SDCWDF.

"This research confirms that the environments in which people live, learn, heal and are governed in, can affect us both psychologically and physiologically in both negative and positive ways depending on various environmental qualities," said *Pam Maynard, Director of Interior Architecture at HMC Architects*.

Maynard and her design team advocate that softer, dignified, colorful spaces do not reduce society's responsibility to punish or eclipse safety. SDCWDF's design is objective and intended to promote self-esteem, a calmer disposition, optimism and encourage self-improvement. It is rehabilitative.



"Here, in this facility, the thinking has been about how you create programs that help educate and develop people to be more productive out in the community," expresses *Beverly Prior, Civic & Justice Practice Leader of HMC Architects*.

Aesthetically, color and light are the first design aspects one's eyes receive. The palette is inviting, expressive and also soothing as it balances vibrant spring grass greens and watery turquoises with refreshing tints of mint and beach glass. The palette also includes colors of sand and mulberry for warmth and contrast. All is then flanked by a warm, crisp off-white that has high luminance from the floods of natural lighting. The assignment of color is thoughtful, rooted in indigenous nature, and systematically assigned to walls, doors, ceiling features, flooring patterns, and furnishings throughout. Designed with absolute intent, this facility's use of color effortlessly secures its visual harmony and brings balance to the environment and, believed, the human within. It by no means yodels "harsh punitive."

Instead, it is a feel good, compassionate palette that expresses with a clear voice that it is a women's facility, with female gender identity and personal needs, and a space with human precepts that include the right to dignity. "Color and harmony, any kind of harmony, has a very strong affect on how people react or act in an area," said *Paul Chastant II of HDR Architects*, who at the time of the project was with *CGL Companies*. "Harmonizing our brain with all of the colors into an organized palette seems to relax everybody."

Another large component contributing to the success of this interior is the carefully selected, secure, intensive use, yet attractive, occasional, lounge and dining room furniture. The seating throughout is vibrant, color-forward and smartly unifies the architectural color palette. When appropriate, the designers specified seating with durable but visually soft upholstered seats and backs and further coordinated occasional and café tables with warm, golden maple wood laminates. Maynard was delighted with her team's choices for correctional furniture that also aligned with the project's softer aesthetic needs.

"In the past, it appeared that the furniture was its own thing and we would design an environment and the furniture was perhaps something we would have to make do," Maynard states.

Arguably, it would be near, if not indeed, impossible to reach the needed level of evidence-based design thresholds displayed in SDCWDF's interior if the design "made do" with supporting furnishings. Furthermore, in an understanding that successful outcomes are predicated upon a holistic system of elements, each providing their contributing role, Maynard's design team also introduced large photographic nature-centered artwork, nature embedded acrylics and decorative lighting. All together, with each element bearing an obvious relationship to the whole, this interior feels familiar and approachable. *Joyce Malloy*, a sales manager in the correctional industry for 35 years, who has witnessed slow change, is thrilled.

"Everything was grey. Everything was stainless steel, and now we are looking at colors. The whole facility is designed this way. It leverages colors to make people feel relaxed. The furniture is very secure, but has a home-like feel to it," Malloy said.

"I think what sets businesses apart is really a passion for making a difference. It's all about the people. We can talk about a chair, or a light fixture, anything. But it all comes down to the people and the affect that this cohesive environment can have on the future of these woman's lives. If it can contribute to a positive effect, then that is what I am most excited about."

- Pam Maynard, Director of Interior Architecture, HMC Architects

CORRECTIONS TURNING TO HEALTHCARE'S EVIDENCE BASED DESIGN PHILOSOPHIES

As we gain more understanding regarding the "power of space," we are finding that we cannot force or intimidate subjects into positive behaviors. These must come voluntarily from each of us. What makes one person want to destroy, push the system and further demote their freedoms and makes another want to re-build their lives and live peacefully without correctional oversight? There is not a fail-safe answer, but many psychologists suggest it starts with self-esteem, self-worth, believing in one's ability to overcome personal plight, creating a sense of hope and therefore a better tomorrow.

Many believe, and research demonstrates, space design can heavily influence this. Today, we are armed with vast amounts of credible science and observation data indicating how evidence-based design ideologies are instrumental in lifting the human spirit and promoting both physical and mental health. In healthcare, these research reports indicate faster recoveries, less need for pain-relieving medications, less injuries and medical errors, as well as an increase in operational efficiencies and decrease in staff turn-over rates.¹⁰ In behavioral healthcare, they indicate less need for psychotropic drugs and a reduction of behavioral discord. In corrections, from Western European reports, post occupancy data indicates less behavioral discord, significantly reduced recidivism rates and less spending.¹

Undeniably, many factors can and do contribute to why human behaviors modify. These often include outside influencers, but many believe space design plays a key role and should be heavily leveraged.

When designing space for measurable positive outcomes, we've also learned we cannot discriminate which evidence-based tenets we wish to explore and which others we'd like to dismiss. Instead, all principles need to be present and carefully executed to work together in a cohesive system of design elements. Regarding overarching space design, these principles are often categorized as:^{10,11}

- 1. Access to Nature**
- 2. Providing Positive Distractions**
- 3. Providing Social Support Spaces**
- 4. Giving a Sense of Control**
- 5. Reducing or Eliminating Environmental Stress**

For interior designers, it is common to be part of a discussion that examines why interesting color and soft furnishings are not their own line items. Most experienced in this trend know that, much like the incorporation of daylighting, interesting uses of color combined with inviting furnishings, are supporting elements to all five of evidence-based design principles for wellness environments.

To place this in better context, each is discussed briefly below in a general context and is not just specific to correctional facilities.



Access to Nature—Studies indicate that nature might have the most powerful impact to help personal outcomes and staff effectiveness. Nature can be literal or figurative.^{10,11} Depending on the space type, this can be floods of day-lighting, water walls, scenic views to outdoor nature, large prints and murals of botanicals and geography, materials and upholsteries that showcase nature (wood, stone, stuccos, embedded acrylics) and most importantly, stimulating colors that evoke and represent nature.



Studies continue to strongly indicate that access to nature such as day-lighting and interesting uses of color can improve health outcomes such as depression, agitation, sleep, circadian rest-activity rhythms, as well as length of stay in dementia patients and persons with seasonal affective disorders (SAD).^{10,11} Positive results linked to nature also have been recorded in patients with late-stage dementia, for instance, Alzheimer’s disease.¹¹ An experimental study found when patients were subjected to

showers and baths, often bringing forth agitated and even aggressive behavior, that sound of birds and “babbling brooks” along with pictures weighted in color reduced their anxieties.^{10,11} In another experiment using volunteers as a control group in a hospital setting, the research team reviewed the pain tolerance of patients who viewed a blank video screen versus patients who watched a “soundless nature video.” The group that watched the soundless nature video reported an increased tolerance for pain and a higher threshold for detecting pain than the group that watched the blank screen.¹¹

Admittedly, none of these studies focused on inmate populations. However, they do continue to affirm the powerful impact of natural elements on human equilibrium, stress reduction and patient recovery. With corrections being focused on human equilibrium needs and statistics that show 50 percent of inmate populations suffer from a mental illness or substance abuse disorder,⁴ human health and the need for spaces to assist in positive outcomes is not isolated to only healthcare and behavioral healthcare populations.

Positive Distractions—These include environmental features that provide an inmate or patient, and when applicable also their family members, a positive diversion from “the difficult.” In doing so, these distractions reduce their stress and possible “blues” or depression.^{10,11} In tandem, positive distractions are also a wonderful design tool to remove the sterility and institutional feel from a facility. Depending on the type of facility, these can be super imposed graphics, three dimensional sculptures, music, and even inviting social “oasis zones.” Ideally there should be a focus on nature and, when visual, an interesting use of color. Such human-centered features can empower residents, patients and families, but also reduce fear with increased confidence of the overseeing staff. This helps open lines of communication and promotes positive interactions.^{10,11}

Social Support Spaces—These are spaces designed to forge positive social interactions amongst the occupants within; to promote trusting, respectful relationships; and even share sympathetic stories. Depending on the space type, these social support spaces can apply to visitor rooms, family lounges, resource libraries, chapels, consult rooms and outdoor gardens. Healthy relationships play a key role to ease tensions and equilibrium, while fostering rehabilitation.^{10,11} These rooms are often designed with maximized day-lighting, expressive uses of color that ties into indigenous nature, and soft welcoming furniture and furnishings.

Sense of Control—The facility that can provide a sense of control when residents, as well as family and staff, feel a distinct lack of it has a therapeutic function. Although this cannot always be done suitably in correctional or mental healthcare facilities, there are some design aspects that can provide a sense of partial control. In general, these design features include optional lighting choices, strong architectural way-finding, resource libraries for learning, enhanced food menus, private rooms and optional areas to reside in.^{10,11} A few well-appointed studies in psychiatric wards and nursing homes have found that optional choices of moveable seating in dining areas enhanced social interaction and improved eating disorders.¹² When occupants feel partially in control of their surroundings, confidence increases, staff well-being improves and tensions decrease.^{10,11,12} As disruptive behavioral discord drops, this allows the caregiver or overseer to use their resources to provide positive programs or clinical needs in lieu of “managing” resident populations.

Reduce or Eliminate Stress—Our anxieties arise when we feel we are not in control of core life aspects, such as in health-related issues, or when we are confined, as when our freedom of choice is taken away.^{10,11,12} Additional elements can also create high stress environments, such as jarring acoustics, harsh artificial lighting and unnerving institutional aspects.^{10,11,12} Evidence-based design elements, which focus on harmony, familiarity and humanity, including but not limited to the first four categories above, reduce environmental stress. Designers heavily leverage color in these interiors to destigmatize institutional spaces, provide a sense of normality, gain user confidence and lower stress.

HOW COLOR PLAYS A SIGNIFICANT ROLE

Correctional spaces shouldn't just be facilities that hand out punishment and offer the containment of inmates. Keeping in mind that only one-third of “lifers” means “life without parole,”² the U.S. is simply unable to afford increased criminal populations. Couple that along with the fact that the federal government is mandating states to build more or to release sizeable portions of these populations,¹³ and you can start to see why greater effort could be given to normalize these environments and raise their standards of living through design. We can strike a balance in how society sufficiently punishes without philosophies of “warehousing.”

Recognizing color as a high-powered design tool that is highly expressive with no additional expense than choosing white paint and furnishings, many designers are now leveraging color in these budget conscious correctional facilities.

Designers are turning to hues combined in interesting combinations to brighten spaces, soothe souls and remove institutional bleakness. These palettes are now more consciously designed, created by true colorists, and are moving towards a focus of high intent to add visual interest and incorporate healing nature. Color in corrections is being used to harmonize, dignify and visually soften otherwise lack-luster, harsh, institutional settings.² As San Diego County's Woman Detention Facility's palette successfully showcases, designers are exploring splashes and pops of brighter chromas balanced by soothing and refreshing hues to calm the senses. These hues are mixing varying degrees of saturation and values of the same hue families. They are uplifting color arrangements with well-being and mental equilibrium at their core.

These correctional designers are on the right track. Healthcare driven evidence-based findings combined with even more compelling end-user testimonials support the need for incorporation of nature, softer finishes and familiar colors that evoke indigenous flora. *Roger Ulrich, Ph.D., of Texas A&M University and Craig Zimring* are two frontier researchers on the subject of healthcare environments of varying types. Their investigations find that patients surrounded by "stimulating surroundings of interest" recovered up to three-quarters of a day faster, were less confrontational and needed fewer painkillers than those who did not – in both delivery of care and psychiatric environments.^{10,11,12} Granted these are healthcare observational research findings and not corrections, which have different demographics. But they are compelling and have designers using color as a supporting aid to achieve more visual interest in all harsh institutional landscapes. Universally these populations experience a sense of a loss of control, reduced health, and at times, a need to lean on staff for their well-being in institutional settings that often promotes fears and raise tempers. Therefore there is a trend to not have these interiors overly neutral, but with an interest use of color, that is stimulating to the right degree.

Science may not yet explain the extent to which color contributes in these environments and what its residual impacts are. However, researchers studying the subject agree that color directs an individual's attention outward and provides a diversion that relieves tension and stress. With the knowledge of color's ability to provide a more visual interesting expressive interior, it is hard to rationally consider how the use of feel-good color in corrections would not play a key role in negating an otherwise white, harsh space. At a minimum, it makes these concrete and metal interiors feel and appear less stark, bleak and forsaken, reducing the potential for an inhabitant to assume those same thoughts. At best, it would influence a person to behave positively and have hope in their future.

Furthermore, partnering color with furnishings and tying these into inviting social support settings, such as correctional day rooms, is believed to be a must for any interior that has the goal of harmonizing and lifting spirits.^{10,11,12} It is also believed a successful combination of these elements, in partnership with additional elements such as natural lighting, reduced acoustics, and a sense of control, can further negate harsh institutional nuances and significantly reduce tensions in aggressive prone environments.¹² For corrections, these behavioral changes translate directly into a safer, less violent and less confined environment.



We are also seeing color play a more functional role in managing way-finding needs and “migrate-able” furnishing allocations. In simpler terms, color also is being used to visually script key areas of designation such as floors, wings, pods and cell doors. In doing so, this gives a sense of direction plus highlights when portable furniture has been faultily relocated.

Additionally, an important topic not to be overlooked is the necessary staff. Many describe correctional staff to be the “eight-hour shift inmates” because a great many spend more time within these walls than the inmates they oversee. Studies indicate retaining quality correctional staff has become a nationwide problem, and this is corrections’ biggest issue.⁷ Baby boomers are retiring, employees can yield more benefits in the private sector, and job satisfaction diminishes significantly when fear and stress are present.^{12,7} Also, studies report that staff personnel need to feel a more direct sense of care from supervisors, and mounting levels of research studies indicate that one’s surroundings play a key role in these feelings.^{12,7} For years, the corporate sector - and now also healthcare – has recognized the role the environment plays in employee recruitment and retention and how this directly impacts the functions of an office or facility. Not only does corrections have these same considerations, many would successfully argue that theirs is more dire and of greater consequence. This has translated into the introduction of nature-centered color, softer furnishings, and at times artwork being incorporated in staff support areas to boost their moral and sooth the psyche, making staff feel cared for and ultimately safer.

WHY THESE COLORS?

After working closely with Norix Furniture since 2008, it can be said with confidence that Norix believes in the power of architecture and design to promote better outcomes. Norix Furniture listens intently to A+D and facility experts’ needs and strives hard to be a partner furniture manufacturer in creating working solutions that provide positive impacts.

It can be argued that we designers are only as strong as our tool box, and Norix Furniture wants to be the tool box for colorful, attractive, comfortable, durable and safe, intensive use furniture. The company’s sales throughout all of its markets, including corrections, shows an increasing shift from monochromatic neutrals to true colors and a mix of complimentary colors.

With the variety of space types, demographics and regional aspects that fall within U.S. correctional facilities, Norix Furniture's "*Naturals Collection*" gives you solid color choices with wide reach. With no two projects being alike, having identical programmatic needs, Norix wants correctional planning and design teams, who know best, to be empowered with choices that work.

With this, the *Naturals Collection* provides expressive vibrant pops, soothing hues and regal, timeless classic colors. Whether your corrections project is male or female, adult or youth, or in Miami as opposed to Kansas City, or urban opposed to smaller township, you have choices that are responsive to age, gender and regional location.



The *Naturals Collection* focuses on four primary considerations within correctional space design:

- 1. Gender : Male versus Female**
- 2. Age : Adult versus Youth**
- 3. Space Location : Within the Facility**
- 4. Geographic : Region of Facility**

Gender—It is a fair consideration that men and women, generally speaking, prefer different interior color palette expressions. This is due to the sensory of certain colors and most certainly culture plays a distinct role as well. As colors can promote dignity, they can also be used to strip it. Corrections has witnessed this with the use of pinkerton pink in men's correctional interiors and prison jumpsuits. When selecting colors to familiarize, men's facilities want to avoid palettes that overtly feel female. A lean to camels, navys, eggplants, and tabascos (used sparingly) are good choices. With an increase in women's corrections, there is a push to ensure these interiors retain their gender identities. Woman routinely express themselves and seek connection. There are many directions an appropriate feminine palette can take; the biggest goal is to provide expression, a degree of softness and interest.

Age—As we mature, our eyes and psyche respond more positively to very sophisticated color combinations and palettes with a variety of contrast, typically with neons eliminated. Our eyes search for varying shifts in value and seek refinement, which can be achieved by adding tints, tones and colors that are tempered with white and grey undertones. However, children with their more energized psyche can easily find comfort in and often search for color with vivid saturation, what many adults would consider "super brights." When applied properly, this can provide a sense of familiarity for youths who may feel out of control and placed in institutional settings that are administered by adults.

Space Location within Facility—Also essential to reflect upon is the length of stay in a particular space/zone. Because shorter term stays in visiting centers, cafeterias, and some social support spaces may allow for more color freedom and visual activity than a longer-term stay such as in an inmate’s cell. Spaces that are more transitional, along with walls, floors, ceilings and upholsteries can all be richly saturated and balanced with neutrals and natural materials. In areas where occupants spend more extended periods of time, the walls and ceiling are most suitable in softer tints and tones, while the floor, upholsteries and accent wall may receive pops of interesting color. Yet, it is important that areas do not feel clinical or drab, but instead inviting and visually interesting. In holding areas, consult rooms and programming areas, great sensitivity should be given to not over stimulate with color. Therefore, it is advised to utilize soothing tones and have less contrasts.

Geographic Region of Facility—The geographic region of a facility must be considered when using color as a tool. Color and nature play a heavy role in familiarizing the patient so they can re-enter society with ease. Also, when spaces feel familiar, inmates subsequently feel more human and normal. Since we now know that nature aids in reducing stress, the outdoor landscape in which an occupant is accustomed to plays a big influence on how they respond to color that is inspired by nature. An inmate living in Seattle would most likely have a different color response than an inmate who lives in Miami. From region to region, flora and fauna and their supporting effects can be quite different. One region may have polychromatic botanicals and tourmaline blue waters, while another region has forest colors and grey skies, likely influencing an occupant’s perception of color and their preference for color saturation. For example, it is not unusual for inhabitants of the Southeast to prefer spring greens while Midwesterners favor deeper, more muted greens. This partiality is indicative of the type of greens they experience in their surrounding nature.

Though the healing/human component is case critical when selecting color for a collection that serves correctional interests, there are more requirements that this color collection must deliver. The following is a list:

- 1. Color Inspired by Nature**
- 2. Timeless Classic Color**
- 3. Color that is Current + Resonates w/ A+D**
- 4. Color that Enhances the Material of the Product**
- 5. Bring Innovation to the Design Market Place**

Color Inspired by Nature—The colors must resonate nature, be found in nature, and universally be located from region to region. Depending on a region, this may apply more for certain colors and less for others. As correctional designers further explore with color, designers will most likely look to natural indigenous flora and fauna for inspiration and search to find manufacturers that can meet both their specialized functional and aesthetic needs.



Timeless Classic Color—For reasons of manageability, reduced costs and to diminish product obsolescence – which provides many challenges for the manufacturer, facility, and designer – the *Naturals Collection* wanted to have timeless classic color. This is not to say that colors are not geared towards A+D trending desires. The palette was carefully studied to provide both. This will only help to set Norix apart from the pack. All colors are inspired by nature and nature is always classic and enduring.

Color that is Current + Resonates w/ A+D—Even with timeless classic color there are color trends. They may not be as likely to shift from year to year, but they are still present. Today's color trends in humanized spaces are shifting and correctional design trends indicate they will be further explored. The more we understand that color is a therapeutic tool, the more we are realizing we have had it only in "first gear" and not given it its full potential. Color is now being kicked into high gear for institutional environments, and it is exciting to be part of. Again, space type and population type plays a big role in the appropriateness of tint, tone, and saturation. But, we are seeing colors become more expressive, weighted in nature and fall "warmer." The fleshy beige has turned more camel, autumn brick reds to more vermilion, steel blues to more robin egg, and greens more sage or spring green.

Color that Enhances the Material of the Product—Since Norix's main products are polymer moldings and vinyls, The *Naturals Collection* is designed to remove any "synthetic material feel" and enhance Norix's materiality that provides superior durability in rugged applications. More natural, expressive, and at times, very saturated tones enrich the quality of these materials. No one is suggesting that users will be deceived into believing a chair is of natural origin, but the palette choices bring an undeniable sophistication and interest to the product line.

Bring Innovation to the Market Place—Norix has a big feather in its hat – this is its "big ears" and "innovation." This is a perfect marriage in market places that are dynamic, about the human, and being designed by science. A goal for the *Naturals Collection* is for the color and research behind this series to resonate with designers and contribute to innovative approaches, forward design, and keen understandings. Forward in color, forward in knowledge, forward in quality and performance. Obviously color in itself cannot deliver all of these attributes. But it can be a big contributor in designers' awareness, respect and willingness to partner with Norix to humanize challenging environments.

CONCLUSION

Many find the recent seismic shifts towards human-centered correctional design to be compelling and of great interest. Relating to correctional design's potential for positive outcomes and the increase of designers successfully implementing evidence-based best practices, U.S. corrections has the opportunity for exciting explorations. With these environments being very complex and performance based, it is presumably understood by all that there is no silver bullet solution for correction's current challenges; but instead, a need for a finite system of elements, all working in tandem, serving as contributors for

improvement and needed outcomes. This shift in advocacy is to be understood as not solely a plight to humanize the criminal within, but in very real terms, as a combined effort, protect and promote needed correctional staff, further safeguard our communities, reduce recidivism, and lower expenditures. As evidence-based researchers qualitatively continue to demonstrate how environmental elements mediate stress, anxiety and aggression, then upon removal of these elements reflect significant positive change, most likely we will witness parallel evidence-based research specific to correctional spaces. Until then and as with all emerging compelling, yet controversial, thought leadership subjects, there will continue to be trail blazing planning and design professionals that will steer into the horizon in search for answers with an intent to unlock correction's burdens, while assisting management teams and staff with working solutions, while supplying the public's need for justice and punishment.

ABOUT THE AUTHOR



Tara Hill is a full-scope, state registered interior designer, and the founder and principle of *Little Fish Think Tank*. Before founding Little Fish, Ms. Hill was an Associate + Senior Designer at HOK, and the Director of Interiors at Stanley, Beaman & Sears. She has implemented award-winning, innovative design solutions for commercial and institutional interiors. Ms. Hill also has significant experience regarding the science and theory of color, both as a design tool and a promoter of healing. She has conducted extensive research in evidence-based design regarding color and its profound impact on the human spirit. Prior to her work with Norix, Ms. Hill developed the Healing Colors Collection for Corian® solid surfaces, by Dupont®, for the healthcare environment.

www.golittlefish.net

ABOUT NORIX

Norix designs innovative, robust furniture that meets the real-world need for humanizing challenging environments. For more than 30 years, the company has served the behavioral healthcare, corrections, higher education, fire/rescue, military, shelter, public safety and variety of commercial industries by providing uniquely reliable furnishings for every application. All furniture is designed for safety, security and extreme durability. Norix furniture is extraordinary by design, surpassing industry standards for strength, safety and long-term performance. Aside from its durability, Norix products also come in aesthetically pleasing designs and colors and are made especially for facilities that require furniture that can humanize their environments. The privately held company is headquartered in West Chicago, IL with consultative sales representatives and dealers throughout the U.S. In 2012, Norix launched Safe Environments, a news and information blog serving architects, designers, administrators and facility managers involved in the design, construction, and operation of challenging environments. For more information, call [800-234-4900](tel:800-234-4900) or visit www.norix.com.

REFERENCES:

1. Deady, Carolyn W. "Incarceration and Recidivism: Lessons from Abroad." Pell Center March 2014.
2. "Fact Sheet: Trends in US Corrections." The Sentencing Project September 2014.
3. Ney, Becky. Principal with CEPP. "10 Facts About Women in Jails." American Jail Association.
4. James, Doris J. and Glaze, Lauren E., BJS Statisticians. "Mental Health Problems of Prison and Jail Inmates." U.S. Department of Justice Office of Justice Programs September 2006.
5. National Association of State Budget Officers, 1985 – 2012.
6. Lawrence, Allison. "Trends in Sentencing and Corrections State Legislation." National Conference of State Legislatures 2013
7. Dial, Kelly Cheesman. "The Effect of Care from Immediate Supervisors on Correctional Employees." Corrections Compendium May 2001.
8. Lewis, Jim. "Behind Bars... Sort of." New York Times June 2009.
9. Leung, Jennifer. Halden Prison: Erik Møller Architects & HLM Architects. Design and Violence 2014.
10. Ulrich, Roger, Ph.D. and Craig Zimring, Ph.D. et al. "The Role of the Physical Environment in the Hospital of the 21st Century: A Once-in-a-Lifetime Opportunity." Sept. 2004. Report to The Center for Health Design for the Designing the 21st Century Hospital Project. This project was funded by the Robert Wood Johnson Foundation.
11. Ulrich, Roger, Ph.D. and Craig Zimring, Ph.D. et al. "A Review of the Research Literature on Evidence-Based Healthcare Design." Health Environments Research & Design (HERD) 2008.
12. Ulrich, Roger S, PH.D; Bogren, Lennart ; Lundin, Stefan. "Towards A Design Theory For Reducing Aggression in Psychiatric Facilities." Aalborg University 2012.
13. St. John, Paige. "Federal judges order California to expand prison releases." Los Angeles Times 2014.