A liner for finishing an interior pool surface is disclosed, the liner including a water resistant material; and a predetermined decorative pattern or design, wherein the pattern or design is applied onto at least one side of the liner. The patterns and designs may be either two- or three-dimensional, and can include iridescent and/or reflective inks, reflective beads and/or pebbles and so on, and be arranged in either predetermined or randomized arrays. A customized pool skimmer face plate system is also disclosed, including at least a skimmer face plate cover, a template having a size and shape proportional to the size and shape of the face plate cover; a water-resistant material having a color, pattern, or design; and a wrapper created from the water-resistant material using the template that complements neighboring colors, patterns and designs surrounding the skimmer face plate installation location.
METHODS AND MEANS FOR IMPROVING
THE INTERIOR SURFACES OF POOLS

CROSS-REFERENCE TO RELATED
APPLICATIONS

[0001] The instant application is a non-provisional applica-
tion claiming the benefit of prior U.S. provisional applica-
tions No. 61/901,850, filed Nov. 8, 2013 (pending) and No.
61/936,540, filed Feb. 6, 2014 (pending), the entirety of
which are incorporated herein by reference.

FIELD OF THE INVENTION

[0002] The present invention relates generally to systems
and materials for improving the interior surfaces of pools,
and in a particular though non-limiting embodiment, to a simple,
inexpensive, easily installed alternative to conventional
gunite surfacing finishes or upon or within which inks, bands
and other decorative indicia are typically applied. The invention
further includes a variety of improved pool skimmer face
plate covers, and in a particular though non-limiting embed-
diment, to an apparatus and a method for producing customizable
skimmer face plate covers that complement the pool’s new or existing finish.

BACKGROUND OF THE INVENTION

[0003] Pools are an investment with many benefits. Pools
not only allow friends, families and colleagues to make
memories and promote a healthy lifestyle through aerobic
activity, they also greatly increase the aesthetic value of one’s
home or property and add value in nearly any setting.
[0004] Owning a pool is a relatively expensive investment
to make and maintain, however, and pool owners expect their
investments to reflect a high level of quality and aesthetics.
There are, therefore, many enhancements a pool owner can
make in order to improve the appearance of their pool.
[0005] For example, there are many styles and shapes of
pools from which to choose—from a classic rectangular
shape to Grecian-style, Figure 8, round or oval, in-ground,
above ground, and many others. Various types of decking
can also be added, as well as other customizable features such as
waterfalls, waterslides, water jets, rock decor, and fountain
additions.
[0006] Presently known high-end in-ground pools fre-
quently comprise gunite lower wall and flooring surfaces,
with upper interior wall and flooring finishes created by
applying decorative indicia to ceramic tiles and other finish-
ing surfaces. Such indicia can include repetitive or random-
ized tile patterns, reflective inks, iridescent inks, reflective
beads, and other attractive flourishes so that the walls and
floor surfaces of the pool reflect and affect light in an aestheti-
cally pleasing manner. Such flourishes brighten the pool area
and enliven the swimming and lounging experience by
enhancing the inherent beauty of the interplay between light
and water, and allow customers to varyably and selectively
personalize their pools so that enjoyment and return on invest-
ment are maximized.
[0007] Such technology is costly and by its nature more or
less permanently installed, however, and errors in installation
and erosion caused by the elements and water chemistry can
slowly erode the beauty and aesthetic enjoyment of the pool.
[0008] Above ground pools and in-ground vinyl liner pools
suffer from the basic problems as gunite in-ground pools,
except that they do not typically include erodible gunite sur-
face finishing and ceramic tiling. Instead, such pools are
usually fitted with liners in an attempt to soften and beautify
interior presentation. Such liners, however, are frequently
even more susceptible to weathering and environmental
deconditioning. Consequently, replacement liners and lining
materials tend to strongly emphasize functionality over aes-
etics, and to date fail to reproduce the far more attractive
design elements present in originally constructed in-ground
gunite pools.
[0009] There is, therefore, a long standing unmet need for
durable, cost-effective pool linings that will replace
in-ground gunite and tile surfaces that better capture the aes-
etics presently associated with more expensive, permanent
construction in-ground pools.
[0010] Similarly, despite the vast improvements in the
luxury details a pool owner may choose or modify, there is
one aspect of the pool system that has heretofore stayed
basically the same since industry inception—the skimmer
cover.
[0011] Those of ordinary skill in the art readily appreciate
that pool skimmers generally help keep pools clean by
skimming water and capturing floating debris, such as leaves,
dirt, twigs, dead insects, and oils. Most pools include one or
more prominently positioned skimmers within at least one of
the pool’s upper walls. Though essential to maintain sanita-
tion and chemical balance, such skimmers are often consid-
ered an eyesore. Skimmers and their covers—typically
exposed face plates attached to a wall surface around the
perimeter of the skimmer opening—are usually industry stan-
dard white plastic plates that are glaringly obvious and which
appear out of place in the streamlined pools of today, espe-
cially those pools that have colorful and intricately patterned
linings or other interior surfaces.
[0012] Pool skimmer face plates therefore act to interrupt
the fluid and otherwise aesthetically pleasing patterns of pool
liners and gunite or ceramic patterning. All pools that have
linings, such as a vinyl surfaced lining, require face plates to
cover and seal around the skimmer to prevent water from
penetrating behind the vinyl liner. These skimmer face plates
are generally screwed to the skimmer, and the unsightly
screws are usually also left visible. To add to their unat-
tractiveness, skimmer face plates regularly discolor from ex-
posure to swimming pool water and maintenance chemicals.
For these reasons, skimmer face plates negatively impact
the overall appearance and aesthetics of a pool.
[0013] Presently known skimmer face plates are available
in standard white, light blue, gray or similar solid coloring.
The lack of available skimmer face plate options prevents
pool owners from customizing or camouflageing the unap-
pealing skimmer face plates. There are currently no known skim-
mer face plate covers that allow for customization to match
the skimmer face plate to the pool’s decorative lining or other
interior surface finishing.
[0014] There is, therefore, also a longstanding but presently
unmet need for an apparatus and a method for providing
customizable pool skimmer face plate covers.

SUMMARY

[0015] A liner for finishing an interior pool surface is dis-
closed, the liner including a water resistant material; and
a predetermined decorative pattern or design, wherein the pat-
tern or design is applied onto at least one side of the liner. The
patterns and designs may be either two- or three-dimensional,
and can include iridescent and/or reflective inks, reflective
beads and/or pebbles, etc., and be arranged in either predetermined or randomized arrays.

[0016] A customized pool skimmer face plate system is also disclosed, including at least a skimmer face plate; a skimmer face plate cover attachable to said skimmer face plate; a template having a size and shape proportional to the size and shape of the face plate cover; a water-resistant material bearing a color, pattern, or design; and a wrapper created from the water-resistant material using the template that complements neighboring colors, patterns and designs surrounding the skimmer face plate installation location.

[0017] Various methods and means of fabricating, installing and maintaining the pool surface improvements are also disclosed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] FIG. 1 illustrates an unfinished interior pool surface as is presently known in the art.

[0019] FIG. 2 illustrates the interior surface of the pool depicted in FIG. 1 as equipped and finished with a custom decorative liner, according to an example embodiment.

[0020] FIG. 3 further illustrates the interior surface of the pool depicted in FIGS. 1 and 2 as further equipped with a custom decorative liner.

[0021] FIG. 4 illustrates the installation of a custom decorative liner, wherein the liner is a bead edge liner with its beaded edge being fed into a track receiver, according to an example embodiment.

[0022] FIG. 5 illustrates the interior surface of the pool depicted in FIGS. 1-4 as customized and finished using the method of the present invention.

[0023] FIG. 6 illustrates a skimmer face plate cover template apparatus, according to an example embodiment.

[0024] FIG. 7 illustrates the template apparatus depicted in FIG. 6 and a skimmer face plate cover apparatus.

[0025] FIG. 8 illustrates an example vinyl surfaced pool liner, to be trimmed using the template apparatus, with a start point marked.

[0026] FIG. 9 illustrates the template apparatus placed on top of the example vinyl surfaced pool liner from FIG. 8.

[0027] FIG. 10 illustrates tracings made on the example vinyl surfaced pool liner using the template apparatus.

[0028] FIG. 11 illustrates the chosen example surfaced pool liner trimmed following the tracings from FIG. 10.

[0029] FIG. 12 illustrates an unwrapped skimmer face plate cover apparatus that is capable of being snapped onto an existing skimmer face plate.

[0030] FIG. 13 illustrates a customized skimmer face plate cover apparatus wrapped in a vinyl surfaced pool liner that was trimmed using the template apparatus.

[0031] FIG. 14 illustrates an example of an unwrapped skimmer face plate cover in a pool.

[0032] FIG. 15 illustrates the skimmer face plate cover fastened to a surface of a skimmer face plate, wherein the skimmer face plate cover is wrapped in a vinyl surfaced pool liner that was trimmed using the template apparatus.

DETAILED DESCRIPTION OF EXAMPLE EMBODIMENTS

Interior Pool Surfaces

[0033] To overcome the disadvantages of the prior art, the present invention comprises a water-resistant liner such as a vinyl surfaced liner, formed from either a single contiguous sheet or a plurality of segmented portions that are assembled and installed, which mimic the many stylistic advantages of more expensive, permanently applied gunite and ceramic enhanced pool finishings.

[0034] In one embodiment, the technology is utilized to produce liners that include the licensed stylings of third-parties in an on-demand fashion, for example, the stylized enhancements of custom designers or a known fashionable flourish. In other embodiments, the designs are customized and comprise, for example, a patterned appearance wherein every nth tile portion (whether an actual segmented portion or a faux tile separation created in appearance only on the surface of the vinyl) a particular pattern or design is repeated.

[0035] In further embodiments, the appearance of the vinyl surfaced liner is enhanced with stylized reproduction of the appearance of repetitive or randomized tile patterns, reflective inks, iridescent inks, reflective beads, and other attractive flourishes.

[0036] In this manner, a plurality of aesthetically pleasing, cost-effective liners and liner pattern templates are achieved, and the need for traditionally cumbersome, expensive and permanent gunite and ceramic enhanced wall and flooring surfaces is avoided.

[0037] With reference now to FIGS. 1-3, FIG. 1 illustrates an unfinished interior pool surface as is presently known in the art. FIGS. 2-3 illustrate the interior surface of the pool depicted in FIG. 1 being customized and finished with a custom decorative liner of the present invention.

[0038] Next, FIG. 4 illustrates a bead edged custom liner with its beaded edge being fed into a track receiver. Finally, FIG. 5 illustrates the interior surface of the pool depicted in FIGS. 1-4 as beautifully customized and finished according to the methods and means of the present invention.

[0039] In one embodiment, a vinyl surfaced liner is an overlap type pool liner installed by coping strips. The coping strip runs along the top of the pool wall and overlaps the swimming pool wall from the inside, thereby holding the liner securely in place. As installing this type of liner can cause an inconsistent and uneven amount of material overlapping around the pool wall, however, overlap pool liners are often limited to liners with either solid-colored or uniform patterns.

[0040] In another embodiment, the vinyl surfaced liner is a snap bead type liner installed by fastening the beaded edge of the liner into a corresponding, receptively configured track receiver installed along the pool wall. The beaded edge is fed into the bead track receiver and secured by manually maneuvering the liner along the length of the bead track receiver, or through the use of various tools generally available to those of ordinary skill in the art in order to assist in the fastening of the liner to the track.

[0041] Again, FIG. 4 illustrates the installation of a custom, decorative liner of the present invention, wherein the liner is a snap bead liner with its beaded edge being fed into the track receiver. Since snap bead liners feed evenly and consistently around pool wall perimeters, such liners easily cooperatively with a myriad of aesthetically pleasing decorative patterns, including wall borders and tile trim that require uniform and level liner installations.

[0042] In other embodiments, the vinyl surfaced liner is a J-Hook (or V bead) liner. In such embodiments, the J-hook or V bead edge of the liner hooks onto the rim of the pool wall, providing a professional grade fitting without an inconsistent excess of material hanging over the edge, as can occur
with the aforementioned overlap type liners. Similar to the
snap bead liner, a J-Hook or V bead liner attaches evenly and
consistently around the pool wall, and thus these liners also
admit to a wide variety of aesthetically pleasing decorative
patterns, including wall borders and tile trims requiring uni-
form, level installations.

[0043] In a further embodiment, the vinyl surfaced liner is
a unibead type liner, which is relatively versatile since it can
be used either with a bead truck receiver or as a J-Hook liner.
Notably, the J-Hook portion of a unibead liner can be
removed to convert the J-Hook liner into a standard snap bead
type liner. Again, the unibead liner, in either of its configura-
tions, attaches evenly and consistently around the pool wall,
and thus these liners also lend to aesthetically pleasing deco-
rative patterns, including wall borders and tile trim requiring
uniform, level installations.

[0044] In a still further embodiment, the vinyl surfaced
liner is an expandable pool liner, preferably made of a durable
vinyl that can stretch to fit a variety of pool sizes and configu-
rations. In short, ordinarily skilled artisans will appreciate
that the types of pool liners and their attachment means suit-
able for practice in conjunction with the claimed invention are
numerous and varied.

[0045] In some embodiments, the vinyl surfaced liner is
installed by hanging the liner onto the pool, in accordance
with the type of liner being used (e.g., standard bead liner,
J-Hook liner, unibead liner, etc.); removing air from behind
the hung liner (e.g., by vacuum); positioning the liner and
shifting it to eliminate wrinkling and pleating as air is being
removed from behind; and then filling the pool with water.
In this embodiment, no sealants or adhesives are used to attach
the pool liner to the surface of the interior of the pool. Again,
those of ordinary skill in the art will appreciate that there are
many possible methodologies for installing the pool liner in a
manner consistent with the advantages of the claimed inven-
tion.

Skimmer Face Plates

[0046] Other pool parts and accessories will benefit from
the inventive method of finishing pool surfaces disclosed
herein. In one particular though non-limiting embodiment, a
pool skimmer face plate cover is customized and wrapped in
order to refine its surfaces.

[0047] Customizable pool skimmer face plate covers allow
pool owners to cover unsightly skimmer face plates and
match or complement them seamlessly to neighboring pool
linings. Disclosed herein, for example, are a number of
example methods and means for producing custom skimmer
face plate covers that admit to further customization of inte-
rior pool surfaces. Through use of this efficient associative
technology, pool owners’ existing skimmer face plates can be
easily customized and concealed.

[0048] In one example embodiment, a skimmer face plate
cover is available in various sizes and shapes equal (or approxi-
amately so) to the sizes and shapes needed in order to
cover existing skimmer face plates, such as wide mouthed,
rectangular skimmer face plates or square skimmer face
plates. In one embodiment, the skimmer face plate cover
easily covers the pool’s existing skimmer face plate by snap-
ning on and off. Those of ordinary skill in the art will appre-
ciate that the options for shapes and sizes of skimmer face
plates and their attachment means are numerous and varied.

[0049] With reference now to accompanying FIG. 6, the
template apparatus in one embodiment comprises a template
[100] that is appropriately shaped and sized to fit the skimmer
face plate cover to be customized. The template [100] allows
the user to produce a correctly sized wrapper in order to wrap
the skimmer face plate cover.

[0050] In a further embodiment, the template [100] has
square cut-outs [1] at the outer, four corners of the template
[100]. Said square cut-outs [1] allow the template apparatus
to produce a custom wrapper that more easily folds at the
corners and wraps around the skimmer face plate cover. Ordi-
narily skilled artisans will appreciate that the possibilities for
specific cuts and other alterations in the template used to
produce a wrapper that more easily folds and wraps are nu-
merous and varied.

[0051] In another embodiment, the template apparatus is
larger than the skimmer face plate cover to be customized,
and the template [100] comprises a dotted line [5], or other
demarcating indication that corresponds to the actual size and
shape of the skimmer face plate cover. In such embodiments,
the template is generally larger than the skimmer face plate
cover to be customized in order to achieve a custom wrapper
that more easily wraps around the skimmer face plate cover.

[0052] In yet another embodiment, the template apparatus
[100] has an additional dotted line [2], or other demarcating
indication corresponding to the location and shape of the
skimmer face plate cover’s mouth opening. In a further
embodiment, the template apparatus has a cut-out [4] located
within said mouth opening dotted line, which represents an
opening similar in shape but smaller than that of the skimmer
face plate cover’s actual mouth.

[0053] In alternative embodiments, said opening cut-out
[4] has diagonal slits [3] disposed from the edge of each of the
cut-out’s four corners to said mouth opening dotted line [2].
Said diagonal slits [3] allow the template apparatus to pro-
cede a custom wrapper that more easily folds at the corners
and wraps around the skimmer face plate cover’s mouth
opening. Those of ordinary skill in the art will appreciate that
the possibilities for slits and other alterations in the template
used to produce a wrapper that more easily folds and wraps
are also numerous and varied.

[0054] Turning now to FIG. 7, the template apparatus [100]
depicted in FIG. 6 is shown next to a skimmer face plate cover
[200], according to an example embodiment.

[0055] In a related method of use, the installer selects a
correctly sized face plate cover and template apparatus that
matches the subject skimmer face plate. The user then
chooses a vinyl liner or a liner comprising a different or
related material that matches the pool’s liner or other user
preferences (or vice versa).

[0056] In one embodiment the user establishes a starting
point [801] on the liner’s pattern [800] [see FIG. 8], such that
the covered skimmer face plate will match and align almost
perfectly with the surrounding liner pattern. The template
[100] is placed on top of the vinyl surfaced liner [800] [see
FIG. 9], or another desired liner. The user then traces the
template, including the cut-outs and/or slits, creating a tracing
[801] [FIG. 10], and lifts and removes the template from the
liner and trims the liner along the tracing [801], creating a
custom skimmer face plate cover wrapper [900] [FIG. 11].

[0057] In this manner, a custom skimmer face plate cover
wrapper [900] is achieved that is correctly sized and shaped.
The user then takes the custom skimmer face plate cover
wrapper [900] and wraps it around the skimmer face plate
cover [200] accordingly, creating a wrapped skimmer face
plate cover [1000] [FIG. 13].
In some embodiments, the custom wrapper is affixed in place around the skimmer face plate cover using a waterproof, adhesive method compatible with the material of the liner used. In other embodiments, the wrapper material includes an adhesive backing for gluing the wrapper onto the skimmer face plate cover. In yet other embodiments, the adhesive is independent of the wrapper and applied separately. In further embodiments, the adhesive is an adhesive glue, gel, spray, tape, or similarly compatible material. Those of ordinary skill in the art will readily appreciate that the vast number of ways to affix the liner to the skimmer face plate cover are abundant and varied.

In a final example embodiment, the skimmer face plate cover is wrapped and then set in place, and the wrapped skimmer face plate cover apparatus is snapped on to the user's pool skimmer face plate [FIG. 15].

The foregoing specification is provided for illustrative purposes only, and is not intended to describe all possible aspects of the present invention. Moreover, while the invention has been shown and described in detail with respect to several exemplary embodiments, those of ordinary skill in the pertinent arts will appreciate that minor changes to the description, and various other modifications, omissions and additions may also be made without departing from either the spirit or scope thereof.

1. A method for customizing and finishing an interior pool surface, said method comprising:
   selecting a desired decorative pattern or design;
   applying said decorative pattern or design onto at least one side of a liner, wherein said liner comprises a water-resistant material; and
   affixing said liner to an interior surface of a pool.

2. The method of claim 1, further comprising: applying said decorative pattern or design onto a vinyl liner.

3. The method of claim 1, further comprising: applying said decorative pattern onto said liner by means of a printing process.

4. The method of claim 1, further comprising: selecting a decorative pattern or design comprising a three-dimensional decorative indicia onto said liner.

5. The method of claim 4, further comprising: selecting a decorative pattern or design comprising one or more of a reflective pebble and a bead.

6. The method of claim 5, further comprising: selecting a decorative pattern or design comprising one or more of a reflective pebble and a reflective bead.

7. The method of claim 4, further comprising: selecting a decorative pattern or design comprising one or more of an iridescent ink and a reflective ink.

8. The method of claim 1, further comprising: selecting a decorative pattern or design comprising a patterned appearance.

9. The method of claim 8, further comprising: selecting a decorative pattern or design comprising a patterned appearance wherein every n-th tile, whether an actual tile segment or a simulated tile separation appearance created on a surface of said liner, repeats said pattern or design.

10. The method of claim 1, further comprising: selecting a randomly distributed decorative pattern or design.

11. A liner for customizing and finishing an interior pool surface, said liner comprising:
   a water resistant material; and
   a predetermined decorative pattern or design; wherein said decorative pattern or design is applied onto at least one side of said liner.

12. The liner of claim 11, further comprising: a decorative pattern applied thereon by means of a digital printing process.

13. The liner of claim 11, further comprising: a decorative pattern applied thereon by means of a screen printing process.

14. The liner of claim 11, further comprising: a decorative pattern or design comprising a three-dimensional decorative indicia.

15. The liner of claim 14, further comprising: a decorative pattern or design comprising one or more of a pebble and a bead.

16. The liner of claim 15, further comprising: a decorative pattern or design comprising one or more of a reflective pebble and a reflective bead.

17. The liner of claim 11, further comprising: a decorative pattern or design comprising one or more of an iridescent ink and a reflective ink.

18. The liner of claim 11, further comprising: a decorative pattern or design comprising a patterned appearance.

19. The liner of claim 18, further comprising: a decorative pattern or design comprising a patterned appearance wherein every n-th tile, whether an actual tile segment or a simulated tile separation appearance created on a surface of said liner, repeats said pattern or design.

20. The liner of claim 11, further comprising: a randomly distributed decorative pattern or design.

21. A method for customizing a pool skimmer face plate, said method comprising:
   selecting a skimmer face plate cover having a predetermined size and shape proportional to said pool skimmer face plate size and shape;
   selecting a template having a size and shape proportional to the size and shape of said skimmer face plate cover, said template further comprising a cutting pattern, wherein said cutting pattern includes a cut-out to accommodate a mouth opening of said skimmer face plate cover;
   selecting a water-resistant material having one or more of a color, a decorative pattern, and a decorative design, applied thereon;
   using said template to create a skimmer face plate cover wrapped from said water-resistant material;
   affixing said wrapper around the skimmer face plate cover such that said one or more of a color, a decorative pattern and a decorative design of the water-resistant wrapper material complements neighboring colors, patterns and designs surrounding a skimmer face plate installation location; and
   fastening the wrapped skimmer face plate cover onto said pool skimmer face plate.

22. The method of claim 21, further comprising: affixing said skimmer face plate cover wrapper using an adhesive backing.

23. The method of claim 21, further comprising: affixing said skimmer face plate cover wrapper around the skimmer face plate cover using a compatible, waterproof adhesive comprising one or more of a glue, a gel, a spray and a tape.

24. The method of claim 21, further comprising: selecting a vinyl water-resistant material having one or more of a color, a decorative pattern, and a decorative design, applied thereon.
25. The method of claim 21, further comprising: selecting a template having a size and shape larger than the size and shape of said skimmer face plate cover.

26. A system for customizing a pool skimmer face plate, said system comprising:
   a skimmer face plate cover having a predetermined size and shape proportional to said pool skimmer face plate size and shape, wherein said skimmer face plate cover is attachable to said pool skimmer face plate;
   a template having a size and shape proportional to the size and shape of said skimmer face plate cover, said template further comprising a cutting pattern, wherein said cutting pattern includes a cut-out to accommodate a mouth opening of said skimmer face plate cover;
   a water-resistant material having one or more of a color, a decorative pattern, and a decorative design, applied thereon;
   a skimmer face plate cover wrapper created from said water-resistant material using said template, wherein said one or more of a color, a decorative pattern and a decorative design applied upon said water-resistant wrapper material complements neighboring colors, patterns and designs surrounding a skimmer face plate installation location.

27. The system of claim 26, further comprising: a skimmer face plate cover wrapper having an adhesive backing.

28. The system of claim 26, further comprising: a skimmer face plate cover wrapper affixed upon said skimmer face plate cover using a compatible, waterproof adhesive comprising one or more of a glue, a gel, a spray and a tape.

29. The system of claim 26, further comprising: a vinyl water-resistant material having one or more of a color, a decorative pattern, and a decorative design, applied thereon.

30. The system of claim 26, further comprising: a template having a size and shape larger than the size and shape of said skimmer face plate cover.