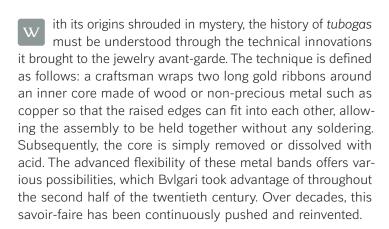


Serpenti Tubogas bracelet-watches in metal. Photograph from the Umberto Buzzacchi Archives





of the times, jewelry designers looked on with interest at

The birth of so-called *tubogas* jewelry is impossible to date precisely. The first known examples date from the second half of the nineteenth century, in the age of the Industrial Revolution. Europe entered a new era as people were leaving the countryside for the cities, leaving the fields for work in factories. Machines grew to be part of people's lives, from England to Italy. New lighting technologies used coal, gas or electricity. In order to circulate these energies, workers manufactured pipes and conduits to flexibly transport gases under pressure and distribute them in the safest way. Ever attentive to technical innovations and the spirit



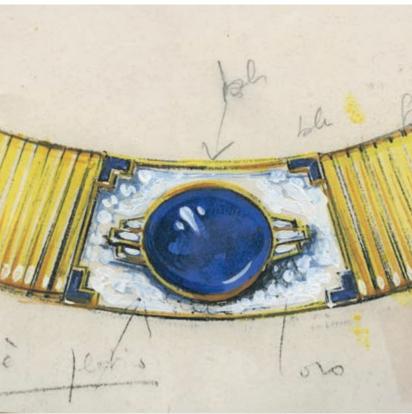
the bold forms of these industrial mechanisms and drew inspiration from them.

This is how, in the late nineteenth century, several workshops manufactured flexible and fluid chains, similar to our contemporary shower-hoses but in precious metal. A man named Auguste Lion is mentioned by the French jeweler and historian Henri Vever in his book La bijouterie française au XIX^e siècle (French Jewelry in the 19th Century). Lion made jewelry from 1861 to 1886 and won awards at the 1867 and 1878 World Fairs in Paris. Among the pieces he sold, we can identify spiral chains similar in nature to future Bylgari tubogas pieces. It is in this context of exchange

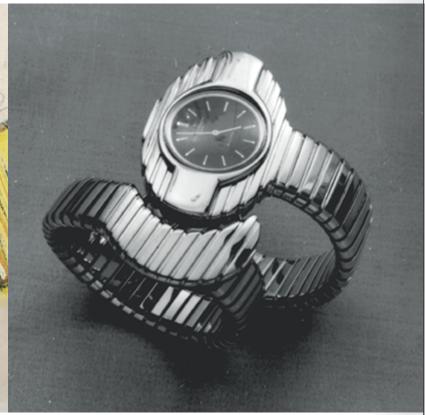
and emulation made possible by the World's Fair that a piece of industrial machinery was ennobled to take its first steps in the world of the precious arts.

However, we had to wait until the 1930s to witness the substantial development of the technique. At this time, designers regarded industrial forms with great interest. In prewar Italy, futurist artists had already expressed their passion for the world of machines in both painting and sculpture. After World War I, the Bauhaus school in Germany developed a rationalist industrial design sensibility, in both architecture and the decorative arts. From 1929 onwards, the Union of Modern Artists (UAM) introduced a modernist aesthetic

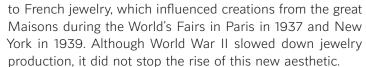
TITOLO (002) DOMVS EXHIBITION TUBOGAS THE QUEST FOR FLEXIBILITY AW24







Serpenti Tubogas bracelet-watch in two-colored gold, ca. 1972. Private collection. Bvlgari Historical Archives



In a post-war Europe undergoing reconstruction, Italian genius paved the way to a revolution in the design world. In tune with the times, Bylgari became the leader of what we call the *Italian school* of jewelry. Far from the conventions established by Parisian high jewelry, the Maison championed this technique of the industrial world that Peninsula workshops had mastered over the course of nearly a century. From the 1940s to the present day, *tubogas* has become

the basis for multiple developments and a true signature of the Maison.

One question remains: where does the name *tubogas* derive from? The oldest sources use *spiral chains* and *spirotube* to describe the shape of the gold mesh. During the interwar period, the gas connection pipes of big cities—and the side exhaust pipes of prestigious sports cars—introduced the term *gas pipe* then *tubogas* to the jewelrymaker's vocabulary.

These names demonstrate a quest for flexibility in jewelry that this industrial technique facilitated. This quest had to be reconciled with the hardness of the materials used in the jewelry world: metals and gems must be tamed by



Detail of *Serpenti Tuboga*s bracelet-watch in gold, ca. 1974.

Bylgari Heritage Collection. Photographed by Barrella – Studio Orizzonte Gallery

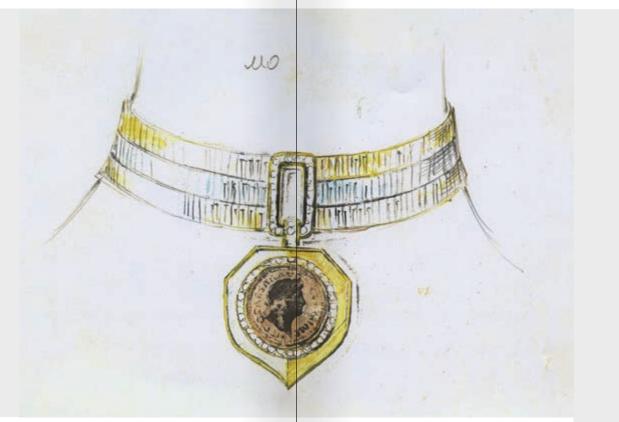
human hands into a form both aesthetic and comfortable. The use of platinum from the beginning of the twentieth century was a major technical development: malleable and ductile, this metal all but disappeared when used to enhance precious stones, as Art Deco jewelry demonstrates. However, platinum was requisitioned for military purposes during World War II and no longer used in jewelry, which allowed for the comeback of yellow gold during the 1940s. While the scarcity of materials was felt in these times of conflict, the creativity of workshops was undiminished. Bylgari artisans created bracelets without stones and reached another level of flexibility with the sole use of gold. Thus, this avant-garde

technical research culminated in the form of *tubogas*. Wristwatches notably embodied this craft revolution, wrapping naturally around the wrists of their wearers. Some of these pieces had their dial positioned not in the center of the bracelet, but at the end of the aptly named *snake chain*, giving birth to the first *Serpenti Tubogas* pieces at the end of the forties.

From then on, Bvlgari used *tubogas* jewelry as the basis of numerous technical and aesthetic experiments: set with precious stones or left in plain gold, covered with colored enamels or decorated with old intaglios. Some jewelry pieces mixed two or three colors of gold, complicating the technique for the artisans who had to wind the ribbons of yellow,

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Monete Tubogas choker in two-colored gold with Greek silver coins, ca. 1974. Bylgari Heritage Collection. Photographed by Barrella – Studio Orizzonte Gallery

Drawing of *Monete Tubogas* choker in two-colored gold with Roman Imperial bronze coin and diamonds, ca. 1975. Bylgari Heritage Collection. Designed by Ubaldo Crescenzi



Close-up of Roman Imperial bronze coin. Private collection. Bylgari Historical Archives

white or pink gold together. In this search for chromatic contrasts, the Maison decided to combine sunny yellow gold with gray steel—a hue very different from white gold—in the seventies. Far from being a simple play of colors, this innovation is the result of a long technological study to identify the type of stainless steel suitable for fusing with gold. The technique, more complex to implement than gold *tubogas* on its own, made the labor cost higher, even though its material was a non-precious steel initially used in the aeronautical industry. What made it precious was the craftsmanship of its manufacturing and the innovation of its design, not the intrinsic value of the material.

The Maison, now famous for its use of unconentional materials, decided to set ancient coins from Greco-Roman civilizations on *tubogas* jewelry. This association could seem radically oppositional at first glance: how can bronze coins whose patina testified their ancient origins find their place on this chain with a design and elasticity resulting from modern industry? This is where Bvlgari's audacity lay during the seventies and eighties. The Maison anticipated the so-called postmodern trends which were emerging in art and architecture at the time, daring to combine ancient references with contemporary elements.

Like a true creative laboratory, *tubogas* served as the basis for one of the Maison's great contemporary innovations: the *B.zero1* collection. Born in 1999, it opened both the new century and the new millennium with a first ring that similarly borrowed its forms from industrial design. This piece is made from *tubogas* at its heart, allowing a certain flexibility at its core, complemented by two circles inscribed with the *Bvlgari-Bvlgari* logo. The use of the double name has existed since the 1970s with the introduction of the iconic *Bvlgari-Bvlgari* watch, which was also eclectically combined with a *tubogas* chain.

These three collections, *Tubogas*, *Bvlgari-Bvlgari* and *B.zero1*, carry within them the same heritage, embodying

the desire to always look towards the future. The industrial design of *tubogas* was a fundamental milestone in Bylgari's history and in contemporary jewelry creation. It demonstrates that what makes a great icon succeed is not necessarily inventing it, but making it survive the vagaries of trends and evolve over time so that it always remains both contemporary and timeless.

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Tubogas bracelet in steel and gold, ca. 1982. Bylgari Heritage Collection. Photographed by Barrella – Studio Orizzonte Gallery



AW24

A dog wearing *Parentesi Tuboga*s and *Doppio Cuore* Tubogas chokers in steel and gold, 1980s. Photographed by Fiorenzo Niccoli

About the author

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Gislain Aucremanne is the Bylgari Heritage Curator-Director. As ambassador, curator, and spokesperson, Aucremanne works to enrich Bylgari's historical legacy, creating heritage exhibitions worldwide while collaborating with a community of international museum curators and art connoisseurs. He has recently curated a Heritage exhibition dedicated to the world of *Tubogas* inside the *Domvs* exhibition space located inside Bylgari's historic boutique on *Via Condotti 10*, Rome. The exhibition will be on display from December 5th 2024 until March 2025.

CRAFTSMANSHIP

THE

WORDS ELISA CARASSAI

MAKING

Mastering the coil — a legacy of craftsmanship and mastery rooted in traditional techniques.

OF

TUBOGAS

On a misty September morning, we set off for VALENZA, home to BVLGARI's prestigious manufacturing headquarters.

estled in the heart of the northern gold district, Valenza is renowned for its centuries-old goldsmithing traditions and boasts the highest concentration of gold artisans in Italy. Of the three major gold districts, which also include Arezzo and Vicenza, Valenza is the most artisanal and traditional, known for its high-quality craftsmanship, particularly in pieces featuring a greater concentration of diamonds and precious stones.

As we drive through the rain-soaked streets, the air buzzes with the promise of discovery, and the wet cob-

blestones shimmer like the precious metals for which Valenza is famous. A palpable sense of excitement builds as we approach the Bylgari Manifattura.

It is in this world of gold and gems that tubogas is born — a jewelry masterpiece that intertwines history, innovation, and artistry. Named after the flexible, coiled form of industrial gas pipes, tubogas is ingeniously reimagined by Bylgari, transforming a utilitarian design into a symbol of timeless elegance. Much like Valenza itself, where tradition meets innovation, tubogas captures Bylgari's spirit: a perfect blend of past and future wrapped in sophistication.

Bylgari tubogas is more than a piece of jewelry; it represents a

legacy of craftsmanship and mastery. Rooted in traditional techniques, tubogas has evolved over the years while retaining its essence and charm. Its innovative construction wraps elegantly around the wrist or neck like a second skin, combining strength, flexibility, and timeless elegance.

The name tubogas can be traced back to the interwar period, referring to gas connection pipes in major cities and the exhaust pipes of luxury sports cars. This terminology reflects a quest for flexibility in jewelry as artisans sought to merge the strength of metals with a delicate, flexible design. The early twentieth century saw the introduction of platinum, marking a significant technical advancement that enhanced the aesthetic appeal of jewels.

Today, the creation of tubogas is a process that fuses tradition with innovation. Every piece undergoes meticulous study and precise execution. "What guides us is the thought of who will wear it," explains Andrea Cherubini,



Bvlgari Manifattura Valenza, Italy







Manufacturing Senior Manager at Bylgari in Valenza. This philosophy permeates every production stage, from material selection to the final finishing.

The process begins with melting metal alloys. Each type, whether white or red gold, requires different melting temperatures - white alloys, for example, melt between 1,090°C and 1,170°C, depending on their composition. This is followed by the ancient lost wax technique, which dates back to Greek and Roman times. A wax model is created to replicate the final product's shape; once molten metal is poured into the mold, the wax melts away, leaving a precise imprint for the metal to fill.

Bylgari employs digital tools to simulate the melting process before it begins, ensuring accuracy and efficiency. This digital modeling guarantees that future molds are free from any errors, allowing the metal to fill every intricate detail and preventing air bubbles or occlusions that could compromise the final product's quality. The creation of molds is equally precise. A master model, slightly larger than the final piece to account for shrinkage during melting, is used to shape liquid rubber into molds, which are then dried in an oven. Once created, the molds are tested to ensure proper function

> before use, with subcomponents mounted on a stem to hold the gold.

The commitment to sustainability is also particularly noteworthy. Every gram of gold is carefully reclaimed, even during cleaning at the end of each shift. Filters installed in sinks and machines capture gold particles, ensuring nothing goes to waste, and inventory checks are conducted twice a year to monitor gold recovery. Material valorization is another key aspect of tubogas production. Rigorous procedures

have been implemented to minimize

MAINTAINING THE PLAYFULNESS

AND EVER-INCREASING FLEXIBILITY OF THE MATERIALS. THAT'S WHERE THE EXPERTISE COMES IN."

"THE CHALLENGE LIES IN

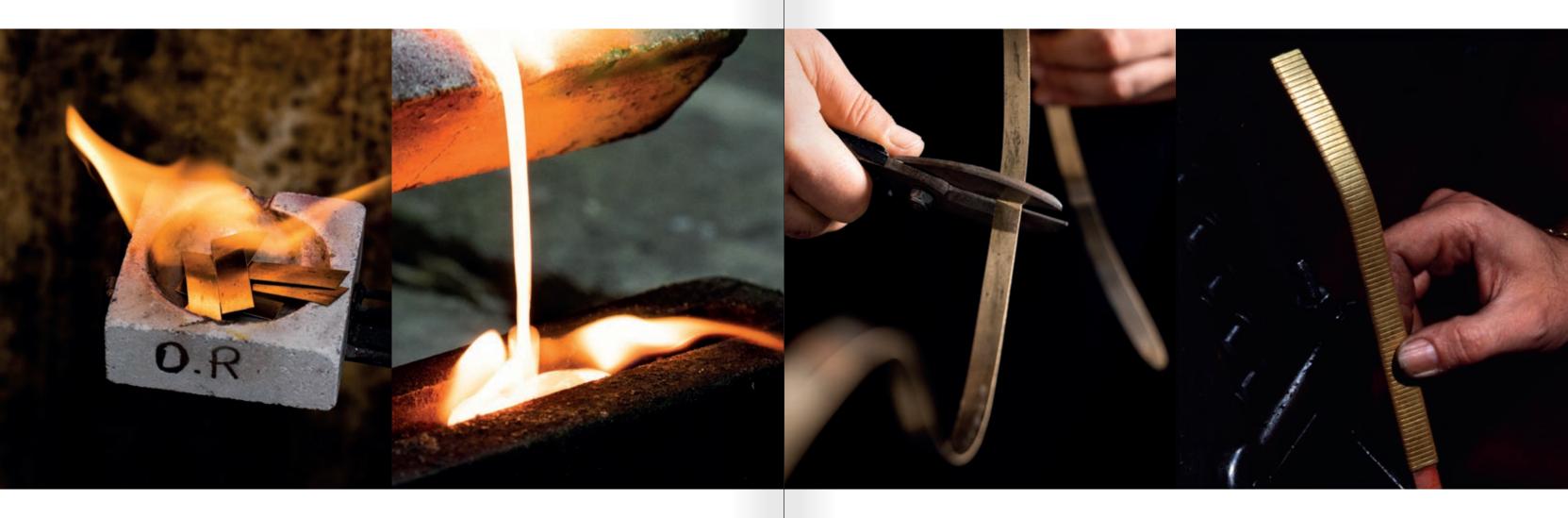
Ezio Dadone, Bylgari's Industralization & Manufacturing Director

waste and ensure that even the smallest scraps of gold are remelted. From special filters in machines to the design of carpets at the workshop entrances, every measure is taken to reclaim precious metals.

In recent years, Bylgari has integrated technology into its creation process, allowing for the design of unique pieces that would be impossible with traditional methods. "In technology, we find perfection, and in the mechanics department, there is always a balance between manual and technological," says Cherubini, reflecting the Maison's continuous drive for innovation.

"The challenge lies in maintaining the playfulness and ever-increasing flexibility of the materials. Each has its own set of parameters, and for every process, it's crucial to identify the precise set — that's where the expertise comes in. The key difference is in the thermal treatments. Only after the thermal process is complete does the tubogas necklace take on its signature shape while retaining the material's flexibility and softness," explains Ezio Dadone, Bvlgari's Industrialization & Manufacturing Director. He underscores this delicate balance by introducing Matteo di Benedetto, one of Bylgari's youngest artisans.

THE MAKING OF TUBOGAS 73 CRAFTSMANSHIP





In his workshop, Matteo Di Benedetto works with quiet precision. Before him lies a fine thread of gleaming gold, fresh from the thermal department, ready to be transformed.

Having learned from the best—his mentor Gianni, who has just retired after over forty years working in Valenza—Matteo measures each segment by hand, his movements slow and deliberate. His wrists remain perfectly still, guiding the gold around a carefully crafted mold with practiced skill. Each bend must be flawless, ensuring the necklace's signature fluidity and flexibility. Few possess the skill to handcraft tubogas, but with Gianni's knowledge and his own patient technique, Matteo's steady hands turn the delicate thread into a masterpiece, one curve at a time.

"The creation of the *tubogas* is both a choral and collective process. To use a metaphor, it's like an orchestra, skillfully blending the contributions of many different instruments to produce something harmonious and artistic," says Dadone. After the basic structure is formed, the piece is polished, transforming it from a simple wire into something extraordinary that puts handmade craftsmanship at the heart of *tubogas* creation. "Every step is done by hand; no machines are involved at any stage, making each piece unique," he says as we move on to meet Gianluigi Benzi, a jewelry assembler who has been with the company for over thirty years.

The necklace's completion is just as crucial as its creation. "Once everything is set and I'm handling the assembly, it takes about a day — around eight to ten hours of work," says Benzi. During this time, Benzi carefully inserts tiny diamonds around the clasp and arranges the client's choice of emerald, ruby, or other gems on the *tubogas* base in a way that highlights both creativity and precision. *Tubogas* is not merely a piece of jewelry; it embodies years of craftsmanship and passion. Skilled artisans dedicate countless hours to perfecting each necklace, ensuring it is both beautiful and durable. "Working on a real person's form is vastly different from working in 3D; we must consider how the closure sits, the weight, and overall comfort," says Benzi, emphasizing the custom-made artistry involved in every piece.

This rich tradition of craftsmanship in Valenza is evolving as experienced artisans pass down their expertise to the next generation through structured programs at the *Bvlgari Jewelry Academy*. By incorporating modern digital tools like technical sheets and video tutorials, Bvlgari ensures that its legacy of knowledge is preserved and adapted for the future. "Your experience, built over the years, shapes your perspective, which is valuable in both your work and life. This craftsmanship embodies manual skill and precision, allowing you to express your true self—it's the most beautiful aspect of what you do. What you accomplish in a day can transform into a piece that inspires awe and admiration," says Di Benedetto.

Tubogas remains a distinctive example of how innovation intertwines with traditional craftsmanship, creating jewelry that tells stories of beauty, elegance, and passion. This dedication to artisanal skill, paired with modern techniques, embodies the spirit of Bvlgari. As we step away from the workshop, we carry with us a deeper appreciation for the meticulous craftsmanship behind each *tubogas* necklace, recognizing that each piece stands as a testament to the brand's heritage and innovative spirit.

Photos:

[PP. 66-67, 74-75] Making-of shot of *Serpenti Tubogas* bracelet-watches in pink gold with diamonds, 2023. Photographed by: Matteo Carassale

[PP. 69, 70-71, 72, 74-75, 77] The high malleability of the gold alloy developed at Bylgari is ideal for the manufacture of *Tubogas*. Two firing processes are required to complete each jewel: one to settle the two strips of metal around the core. The second to shape the piece. These images illustrate three stages in the production of *Tubogas* jewelry. Photographed by: Sanskia van Steregen for *Bylgari Monography*, 1996

About the author

Elisa Carassai is a Milan-based writer, editorial strategist, and communications consultant. She contributes to Vogue Italia, British Vogue, and Wallpaper*, and she has worked with luxury brands. In 2019, she co-founded her own publication, Sali e Tabacchi Journal, and teaches media studies, journalism and communications.

AW24



BENDANDSTRETC

TUBOGAS, A TURBO-CHARGED EVOLUTION

"THE
UNEXPECTED
MARRIAGE
BETWEEN THE
EXCEPTIONAL
AND THE
UTILITARIAN—IS
AT THE CORE
OF TUBOGAS."

An industrial commodity is the source of one of jewelry's most recognizable and successful motifs: *tubogas*. It is also synonymous with Bylgari's unbridled creativity and one of its most iconic pieces, the *Tubogas Serpenti*.

ach time a ray of light hits an old nineteenth-century carnelian intaglio, it turns the stone into a beating heart. The stone in question, with its recessed carving, belongs to a 1980 tubogas choker. It features three rows of tubogas mixing two types of colored gold. The cardinal gemstones (sapphires, rubies, emeralds and diamonds) are set where the tubogas bands meet with the central stone. Bylgari's most iconic design might originate from a mundane source of inspiration, but it has become a core component of precious creations.

Indeed, what better way to express creativity than to make use of the everyday with an approach directly aimed at eclectic and creative cross-pollination? This technique would not sound too out of the ordinary were it not employed to create a valuable object. The artful union of highbrow and lowbrow concepts—the unexpected marriage between the exceptional and the utilitarian—is at the core of *tubogas*.

The motif, inspired by the corrugated tube made of articulated bands used to protect and transport pressurized gas, had already found its way into the jewelry world in the twenties. It was in the second half of the twentieth century that Bylgari made the concept their own thanks to a breakthrough technique that replicated the accordion motif and kinetics of the industrial pipe in gold.

Both flexible and adaptable, the Bvlgari style can be used across all jewelry categories, from bracelets to chokers, cuffs, necklaces, and wristwatches. It is in this last domain that *tubogas* cemented its destiny, since its sinuous articulation also evoked the snake and thus illustrated Bvlgari's fascination for ancient heritage. In 1948, the first coiled *Serpenti Tubogas* bracelet-watch was born, followed by many hybrid versions over the years, while the *tubogas* motif itself was fully embraced from the seventies onwards.

In retrospect, *tubogas*'s instant success likely had to do with Bvlgari's visionary spirit for jewelry design, and it appears that the concept may have been a precursor of the Pop Art movement. When, on July 9, 1962, Andy Warhol's exhibition with *Campbell's Soup Cans* opened at the Ferus Gallery in Los Angeles — another brilliant elevation of mundanity to collectable status — *tubogas* was already enjoying a second life.

That same year, Elizabeth Taylor was in Rome to shoot *Cleopatra*, during which she was allegedly gifted a *Serpenti Tubogas* wristwatch in secret by the film producers. With its head and tail in white gold set with diamonds and body in yellow gold *tubogas*, the reptile watch combined myth and legend with modernity.

The Serpenti Tubogas has been reinvented in a myriad of ways since its inception, from stylized versions in the late forties, with circular and pear-shaped dials suggestive of snakeheads, to the more naturalistic snakes created from the late fifties through the late seventies, with the head of the snake affixed by a hinge to conceal a secret watch. From the Bylgari Heritage Collection comes one iteration from the fifties with an emphasis on how a snake would coil around its prey. Could it be a rattlesnake, as indicated by the diamond-paved tip of its tail? The bracelet-watch can be wrapped around one's arm five times, while the watch itself is hidden inside a diamond-set head with ruby eyes. Furthering its likeness to a reptile, the tubogas motifs overlap one another.

Many other *Serpenti* were made with enamel work, which often replicated snakeskin patterns. The modern *Serpenti Tubogas* has undergone umpteen variations through the use of different metals, different sizes, and even complications in the form of minute tourbillon mechanisms.

Once *tubogas* and *Serpenti* had met their match in one another, the Bvlgari creative team, unwilling to rest on its laurels, kept pushing the aesthetics of *tubogas* by mixing different colored metals.

In the seventies, following months of research, Bylgari achieved a type of malleable stainless steel that crucially could be micro-fused with gold.

Therefore, after years of dealing exclusively with polished yellow gold, a bicolored iteration of *Serpenti Tubogas* with dark gray (the steel) and yellow (the gold) stripes and a round dial in black with a golden dot at twelve o'clock was revolutionary.

Historically, there have been instances when craftsmanship outweighed preciousness, as seen in the success of cut-steel and Berlin Iron creations from the nineteenth century, famously illustrated in a Berlin Ironwork suite by Geiss, Germany, ca. 1830 (and sold at auction by Bonhams London in 2020). This was a case of the ends justifying the means: during the Prussian Wars of Liberation (1813–15), women wholeheartedly supported the war effort by sacrificing their precious jewels for delicate and ornate ironwork pieces in order to help finance the war against Napoleon.

However, the first bicolored *Serpenti Tubogas* was game-changing for the fact that steel, an industrial material normally found in aeronautics and medical fields, was combined with precious gold for the first time.

Years later, circa 1972, the offspring of this first bicolored iteration with a round dial and the first-ever *Serpenti Tubogas* bracelet-watch from 1948 was born in the form of a *Serpenti Tubogas* bracelet-watch in burnished steel and gold with a square case. There is no end to the hybridization of *Serpenti Tubogas* across time.

Bicoloration jumped across other product categories, namely jewelry. From a private collection, a *Monete Tubogas* choker circa 1975 in 18-karat rose and 18-karat yellow gold is yet another prime example of how the functionality of the *tubogas* motif pairs well with exceptional finds. The stacking of three rows of *tubogas* one above the other is paired with an ancient Roman Imperial bronze coin and diamonds. This coat-of-arms-style medallion is suspended from a diamond-paved notch that cuts across the rows in the center of the necklace.

The use of multiple colors has not been the only experiment with tubogas. Beyond the choice of gold, Bvlgari has also played with the motif's shape. At times flat, at times convex, it has even taken on a triangular form akin to a Toblerone^M bar, as seen in a tubogas bracelet in steel and gold circa 1988. The three rows of links each culminate in a cabochoncut gemstone. The roundness of the citrines and green tourmaline softens the pyramidal bands.

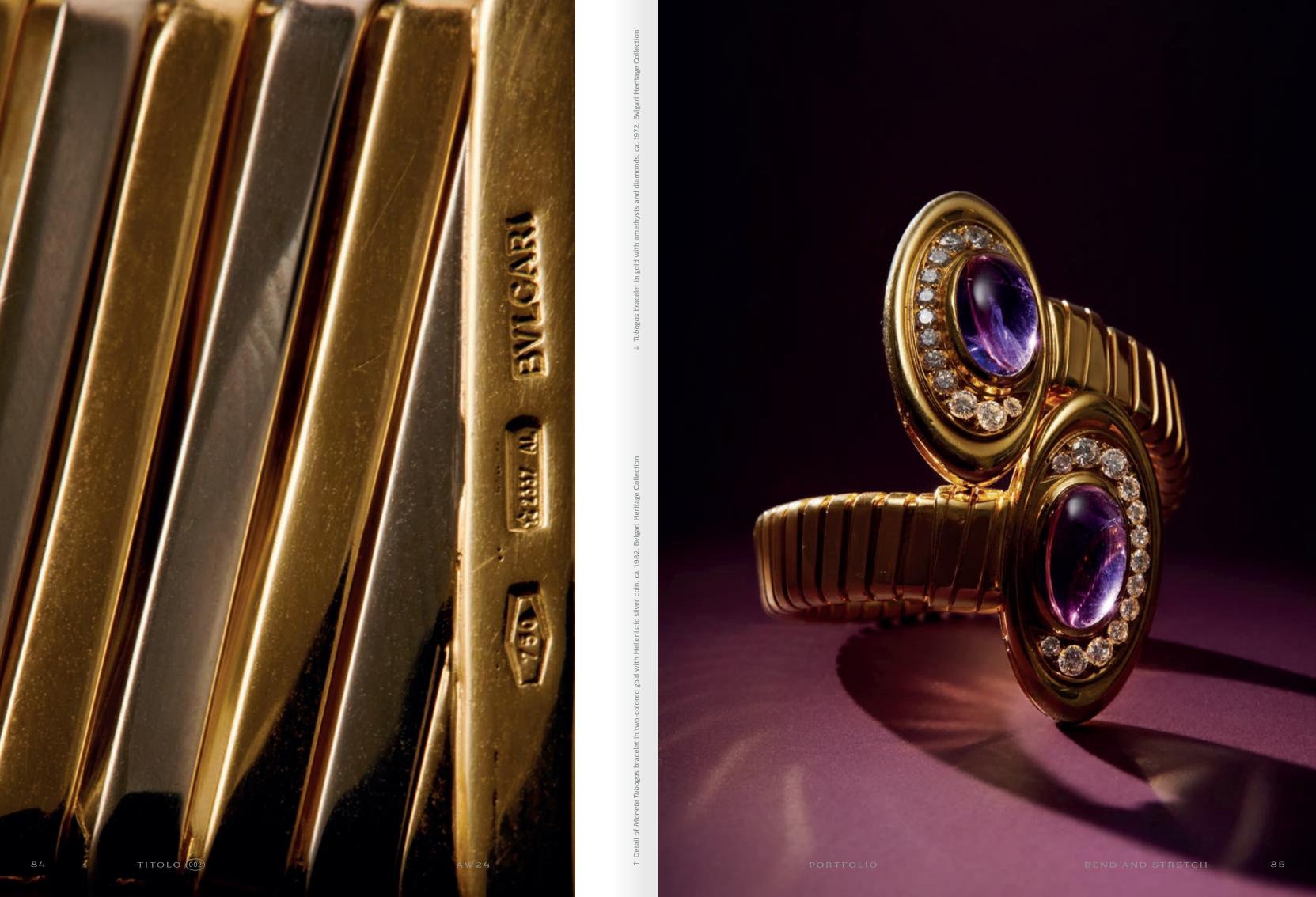
The use of colored gemstones elevates tubogas at the same time as it signals its playfulness. The graphic design style of the seventies was all about bright and clashing colors and balloon forms. It is found in a set of *tubogas* bracelets from 1972 (Bvlgari Heritage Collection). The yellow gold motif is the bridge between an enameled ball on either end (one yellow ball and one green ball). In one bracelet, the balls are decorated with diamond-paved polka dots atop the enameled surface. The dumbbell design is bold and joyful.

The same vitality can be found in more recent creations in which the *tubogas* motif again embraces colored gemstones. A series of rings from 1992 showcases colored gemstones of various cuts set onto *tubogas* bands of different heights. The version set with a peridot even associates *tubogas* with another motif, a sort of modular jewel. The combinations are endless.

Tubogas has long since shed its utilitarian aspect as it continually reinvigorates Bvlgari's precious repertoire. Rarely has one style offered so much opportunity for re-invention, and this is why tubogas is intrinsically linked to the Maison's ever-expanding legacy.

About the author
Olivier Dupon is the author of works such as
The New Jewelers and Fine Jewelry Couture. As a
journalist, he has contributed to a number of
international publications, focusing on high jewelry
from a creative and technical point of view.

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↓ Detail of Tubogas bracelet in steel and gold with citrines and green tourmaline, ca. 1988. Bvlgari Heritage Collectio



PORTFOLIO BEND AND STRETCH

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