# Arno Pro <br> $\mathcal{A}$ new humanistic type family from Adobe 

An Adobe Originals typeface family in OpenType ${ }^{\circ}$ format

## Arno Pro

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## Arno Pro

Named after the Italian river which runs through Florence, the city at the heart of the Italian Renaissance, Arno draws on the warmth and readability of early humanist types of the 15th and 16th centuries. While inspired by the past, Arno is distinctly contemporary in both appearance and function. Created by Adobe Principal Designer Robert Slimbach, Arno is a meticulously-crafted typeface family designed in the tradition of early Venetian and Aldine book types. Embodying themes Slimbach has explored in typefaces such as Minion ${ }^{\circ}$ and Brioso, Arno represents a distillation of his design ideals and a refinement of his craft.

## A multi-featured OpenType family

Since the onset of the Adobe Originals program in 1989, Adobe has continued to offer designers progressive new type families and cutting-edge font technology. As a multi-featured OpenType family, with the richest Western-language glyph complement Adobe has yet offered, Arno includes extensive pan-European language support, including Cyrillic and polytonic Greek. The family supports a broad range of uses, with features such as five optical size ranges, extensive swash italic sets for Latin, Greek and Cyrillic, and roman and italic small capitals throughout.

## Optical size ranges

Beginning in the 16th century, punchcutters often cut a unified range of sizes for a particular font style. For every size that was hand-sculpted in metal, subtle adjustments were made to letter proportions, weight, contrast, and spacing so that the type would be as readable and beautiful as possible. With the advent of photo and digital type technologies, most type manufacturers abandoned the design of optical masters - opting instead for a "one size fits all" approach in which a single master is scaled mechanically to the selected point size. Unfortunately, such typefaces have a limited range at which they look their best.

For the last 15 years, Adobe has been committed to reestablishing optical sizing as an industry standard by routinely incorporating size ranges in all its new composition families. Arno Pro includes a series of four weights in five distinct optical size ranges - caption, small text, text, subhead, and display. Each of the thirty-two typefaces has been designed and calibrated to work harmoniously with the others as a unified, contemporary system of typefaces.

This booklet contains an interview with Robert Slimbach, conducted by type expert Adam Twardoch, who delves into the design background and development of Arno Pro. The family's OpenType functionality is then explained and illustrated, followed by examples of the type family in use in a variety of text settings and sample art layouts.

## Classical

 Eкфрабтіко́s Elegant Мирный Practical Refined Eúpxpovos Readable Красивый Calligraphic BalancedRobert Slimbach responds to questions submitted by Adam Twardoch about working at Adobe and the development of the Arno Pro typeface family.

In your design career, you have often looked to classical types for inspiration. You have remained quite close to the sources when reviving some historical types, as with Adobe Jenson ${ }^{\text {nex }}$ and Garamond Premier, while some of your other typefaces are more contemporary approaches that tie only loosely to the models, such as Minion and Kepler. Only very rarely, as in the case of Warnock, have you departed from the traditional type classification structure.

Why do you feel so many designers of text typefaces work within the defined classifications of type?

It is largely a practical requirement-I can't really think of any contemporary book types that aren't rooted in classical foundational forms. For more than 500 years, text types have continued their slow and rather conservative evolution - guided by principles of form, function, and tradition. In hindsight, they've followed a predicable path, beginning with the calligraphically-inspired humanistic types of the Italian Renaissance, which established the basic form of the modern Latin alphabet, followed by two centuries of increasingly-rational variation in transitional and modern types, eventually arriving at the minimalist sans serif types of more recent times.

Venetian Old Style Aldine Old Style French Old Style Dutch Old Style Transitional Modern

Old Style Sans

Transitional Sans Modern Sans

A few basic text type classifications. From top left: Adobe Jenson, Bembo ${ }^{\oplus}$, Garamond Premier, Van Dijck ${ }^{\circledR}$, ITC New Baskerville, ${ }^{\oplus}$ Bauer Bodoni. ${ }^{\text {Tas }}$ From top right: Cronos ${ }^{\oplus}$, Myriad ${ }^{\oplus}$ and Univers. ${ }^{\text {Ta }}$

Now that the path toward reductionism is more or less complete, it makes sense that type designers look to the established archetypes for inspiration, either by adapting classic types for modern usage, or creating new typefaces which follow the design principles of established classifications - or even combining styles to create progressive new text types. Because the familiar, traditional form which grew out of centuries of handwriting practice -remains embedded in readers' minds, it is crucial that designers of text typefaces work within its bounds. This applies equally to both classical styles and overtly modernist ones constructed entirely on a computer screen.

Many of your typefaces-Adobe Jenson, Brioso, Minion, and even Poetica ${ }^{\oplus}$ and Cronos-draw inspiration from the Renaissance Humanist tradition in both printing and calligraphy. Can you describe what appeals to you most about this period?

I guess I do have an obsession with this period; even in my non-humanistic types, I tend to instill humanistic undertones as a means of tempering design traits that are more constructed in nature. My fondness for the Italian Renaissance has a lot to do with it being the time when handwriting and type were closely interrelated. I see this link as being foundational to the basic structure of our alphabet, and I make reference to it - as a matter of course in all my designs.

With so many digital typefaces already on the market, do you think there is still room for innovation? What do you hope to contribute to typography and digital type with your continuous work?

We are in an incredibly active period in type history -kind of a second Renaissance. Just as Renaissance artisans and scholars reshaped classical antiquity according to a unified vision, present day computer
users have at their disposal easy access to the learning and accomplishments of the past, and powerful new tools to reinvent them for a contemporary audience. These new digital type design tools have opened up a new world of possibilities for today's designers. Not only can typefaces be produced much more efficiently and precisely than ever before, OpenType has given designers the freedom to explore new typographic territory, and more influence over how their fonts are used. So, while the volume of new typefaces continues to escalate, the standards for quality and glyph coverage are also on the rise, making it less acceptable now to simply flood the market with quickly-produced fonts with modest glyph complements.

It is clear that typography is in a transitional stage, between the basic needs of the past and the more technology-driven global needs of the future. While most new typefaces are still created for local markets, fonts will, increasingly, be called upon to function within the broader worldwide business and communication environment. I feel the trend toward super-families will continue, eventually resulting in a large repository of near-perfect and technically sophisticated text families that cover many of the world's languages. There is still an enormous amount of work to be done-and I'd like to think that our ongoing work at Adobe sets a good example for the future.

What are the aesthetic considerations that you feel a good contemporary text family should follow?

Those who evaluate text types usually consider them in terms of their legibility and readability. While legibility deals mostly with the measurable aspects of type, such as letter proportion, stroke contrast and fit, readability is a more nuanced criterion that also takes into account the reader's visceral perception of the text. Not only do letterforms need to be optimized for maximum recognition, but a
good text type must also have a tangible style and grace that enhances the reading experience.

The proper balance of organic properties can help create the style and grace that contribute to readability. While types that contain many repeated shapes often appear static to the reader, those with aesthetically pleasing variation can provide a mellowing effect that makes a type more comfortable to read. Because computers tend to encourage designers toward order, precision, and design regularity, it is up to the designer to bring humanity to the medium. Font production tools can be restrictive and don't readily respond to human gesture. This is why I feel it is so important for the type designer to be both a proficient letter-drawer and calligrapher. Whether a digital text type is traditional or progressive, it can be true to the exacting nature of the medium and still possess characteristics that embody the spirit of our humanity.


Your recent type design projects such as Garamond Premier and Arno have been extremely ambitious: large typeface families with many weights, optical sizes and huge character sets. Many type designers work on a freelance basis or are employed by companies that are exclusively focused on type. I have a sense that, quite often, type designers would like to push the limits of their projects further but "there is only so much that the client can pay for."

## Do you feel there are many advantages working at

 Adobe? Are there any disadvantages?Working at one company has given me the opportunity to develop and refine a unified body of work. The dynamic environment at Adobe also provides a means of getting new ideas directly into the product. As a type manufacturer, I believe Adobe is special; we simultaneously develop new type technology, new type layout software, and new typefaces - all of which are at the foundation of digital typography. Each area complements the others, providing opportunities for each to grow. Adobe has excelled in all three areas, which has led to major advancements in type throughout Adobe's 25-year history.


The headquarters of Adobe Systems in San Jose, California.

While new technical developments - such as multiple masters and OpenType-have encouraged type designers to reach further in their work, new kinds of typefaces or glyph sets can also drive technology forward when they call for new technical support. The symbiotic working relationship between diversely talented individuals, receptive to positive change, has made it possible for Adobe to remain a leader and guiding force in the industry for so long. I can't think of a better place to be designing type today. The only downside I can think of is that the job demands a tremendous commitment of time, focus and intensity that often overshadows outside interests.

## Historical influences and design background

Arno is obviously rooted in the Renaissance but I cannot fit it easily into either of the traditional humanistic classifications from that period: Venetian or Aldine. Are these classifications too narrow? What traits of those historical models can be found in Arno?

While it is probably most accurate to classify Arno simply as a contemporary humanistic roman, I did try to capture some general Venetian and Aldine characteristics in the family. Its degree of refinement and practicality relate more to Aldine types, while its calligraphic exuberance makes it reminiscent of Venetian-style types.

Rather than referring directly to historical sources, I relied on my impressions of each style, which naturally influenced my developmental sketches, calligraphy, and on-screen work. After years of designing type families in the oldstyle tradition, the principles of early roman types and Renaissance calligraphy are now hard-wired in my consciousness.

When I think of Venetian fonts, I see them mostly in terms of their characteristic calligraphic foundation - very formal and typographic, but also fluid and organic. Working with a broad-edged pen as one of my primary design tools, I derived much of Arno's form - either directly or indirectly - from my handwritten sketches. This approach not only helped personalize the glyphs, but it gave me a deeper understanding of the calligraphic roots of early roman type.

## a bdpq eghmnu rsy a bdpq eg hmnu rsy

## a bdpq fg hmnu ACEMPRT a bdpq fg hmnu ACEMPRT

[^0]The Aldine romans, while still fundamentally calligraphic, are even more formal than Venetian types. Griffo took the letterforms in his roman fonts beyond their calligraphic origins, devising letters that compose exquisitely as modular components, and are generic in the best sense. He was able to reduce the more earthy properties of previous types to their essential form, devising a reliable design formula that type designers have followed, in one way or another, ever since.

It never ceases to amaze me that within a rather short period of some forty years (circa 1470-1510), the Venetian type makers, especially Jenson and Griffo, departed completely from the blackletter tradition and established a fully new graphical structure, defining the modern Latin alphabet. Their types remain readable to the reader today, and are among the most popular historical models that contemporary type designers draw inspiration from. How would you explain this?

It is fascinating to analyze the progression from humanistic calligraphy to roman type, particularly the moment when humanistic minuscules took on the inscriptional serif structure of Roman capitals. The earliest Venetian romans, while inspired, were also somewhat crude. Nicolas Jenson, however, was able to design a Venetian-style roman that stood on its own as a fully-resolved printing type, clearly different from its calligraphic models and in perfect harmony with the print medium.

## SENATVS•POPVLVSQVE ROMANVS•IMP•CAESARI

## degender rationem patitur effee fuı. Quin etaam fiquis afperitat

[^1]
## uirtuté oftendunt:quibu Hxe neceffario tibi expo ignorares. Curautem hx

Enlargement of Nicolas Jenson's roman type.
I marvel at the earthy beauty and artfulness of Jenson's forms, both as set text and as magnified letters. Of all the early lettercutters, Jenson had the distinct advantage of being a skilled goldsmith and letter engraver who worked for years at mints in Paris and Tours. His type didn't just come out of thin air-he was poised at a very special transitional moment in history, equipped with the skills to make something truly remarkable and timeless. Jenson's roman is a touchstone that gives me insight to the very special period when humanistic calligraphy was successfully interpreted as movable type. His roman displays the natural flow of a handwritten script and the raw sculpted form of a highly skilled artisan working in a medium not yet fully established.

Compared with Jenson, I find the leap that Francesco Griffo made in further resolving the roman letter as a practical book type even more remarkable and mysterious.

## per habuiffe, quo alerétu magnum ipfi magiftrae 1 et parenti naturae: quid

Enlargement of Francesco Griffo's first roman type.
At the time Griffo cut a series of highly successful roman, italic and Greek types, he was employed by the illustrious publisher Aldus Manutius. In one fell swoop in 1495, Griffo established the form of the modern text letter with the first of three roman types he cut for Aldus. This remarkable type is almost beyond reproach as a practical font for
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[^2]setting extended text. All the details of proportion and design, particularly in the lowercase, are resolved in an ideal balance of beauty and functionality. It is difficult to say how much influence or direction Griffo received from Aldus - apparently a dispute between them about typeface ownership contributed to their eventual falling out.

In Renaissance typography, the upright and the italic fonts were considered separate typefaces, and were not mixed together. Did you draw inspiration from any classical italic sources? If so, were there adaptations that needed to be made so that they would be compatible with the roman?

The italics in Arno grew out of my pen lettering, so I didn't have to modify the traditional widths, which are too condensed to work with romans.

I did, however, become very familiar with italic types of the early Renaissance while developing the italics for Adobe Jenson. Of all the early italics, those by Ludovico Degli Arrighi stand out as being the most principled and best executed. Both his cancellaresca corsiva type, which contains many swash letters, and his cancellaresca formata type embody the elegance and compact proportions of his formal handwritten script. His corsiva type has a charming appearance and is best suited for shorter texts such as poetry, while his formata type is a more practical style for setting continuous text.


Arrighi's cancellaresca corsiva style typeface. Blossio Palladio's Coryciana, printed by Arrighi in 1524. Image courtesy of the Bodleian Library, University of Oxford.

> Cumfuritaccenfis acies Vulcaniacampus. Necturbato oritur quondam minor aquore pugna . Confligunt animofif Euri certamine uafto
> I nter $\mathcal{J}$, pugnantque aduerfis molibus unda . V sque adeo paffim fuares infignia late P crmutantque, turantque nicijfim, et mutuaf $\int$ •e
> A ltera in alicrius transformat protinus ora.

Arrighi's cancellaresca formata style typeface. Marcus Hieronymus Vida, Scacchia Ludas, printed by Arrighi in 1527. Image courtesy of the Bodleian Library, University of Oxford.

You have said that the upright and the italic styles of Arno are influenced by your calligraphy. How was it to work with a broad-edged pen as one of your design tools? Did you prepare type drawings? Did you ever construct letters directly on-screen?

As with most of my types, I began by sketching alphabets with a broad-edged pen or ball-point. Using rhythmic pen strokes, I find that I'm able to flesh out design ideas very rapidly. It is also a means of introducing spontaneous form into the family. I may refine the sketches a bit before scanning; other times I'll simply use sketches as notes for developing shapes directly on the computer. Over the years, these methods of designing have blurred together, and I use them all throughout the process. By combining aspects of calligraphy, drawing, and digital construction at every phase, I feel the designs will ultimately show a greater depth and complexity.

Forthwith a change came over the waters, and the serenity became less brilliant but more profound. The old river in its broad reach rested unruffled at the decline of day, after ages of

## peopled its banks

[^3]Even though Arno is different from your other designs in many respects, I see some resemblances - particularly with Minion and Brioso. What did you draw from each, and what new ideas were you hoping to bring to Arno?

I see Minion and Brioso as two ends of the oldstyle design spectrum. While Minion was an exercise in restraint-a distinctly digital, generic design with a simplified structure and moderate proportions Brioso is a more specialized and overtly calligraphic composition family, utilizing a more naturalistic style of outline construction. Many of the lessons learned in both projects were applied to Arno, which possesses some of the rationality and precision of Minion, along with some of the charm and subtlety of Brioso. I think it is natural for a designer to periodically return to favorite themes with a new variation in mind. Arno represents a summing-up of ideas that have been brewing for a number of years.

## A gentle rain-storm in August A gentle rain-storm in August A gentle rain-storm in August

Minion, Brioso and Arno.

Is there a difference between drawing letterforms on paper and working with digital font creation software?

Definitely. Drawing and writing letterforms on paper represent, to me, freedom and spontaneity, involving both the mind and body. Constructing letterforms on-screen is much more an analytical and methodical process like sculpting. Instead of using clay or stone, one sculpts with Bézier outlines using a keyboard and mouse. It is also architectural, in the sense that form is built up and refined over time within a rigid grid system. When I first began designing type, I used to prepare refined type drawings for digitizing. Nowadays, most of the refining and literally all the design proliferation takes place on the computer.


While the digital medium has revolutionized type design in so many ways, it has an inherent rigidity and coolness about it that, if not tempered with living form, can lead to rather sterile results. It has been an ongoing challenge for me to balance the organic properties which are inherent to letterforms and the human experience against the demands of an environment that calls for a high degree of order and rationality. Throughout my type design career, I've attempted to develop a style of outline construction that satisfies both concerns.

## Optical size considerations

Most of the extended typeface families you've designed, starting with Utopia, ${ }^{\oplus}$ Kepler ${ }^{\circledR}$ and Sanvito ${ }^{\circledR}$ through Adobe Jenson, Cronos and Minion up to Warnock and Garamond Premier, include separate fonts designed to be set at different point sizes. There are only a few other font vendors besides Adobe who provide fonts with such extensive sets of optical sizes. Why do you think it is important to offer a range of optical sizes?

The short answer is they make type look more balanced and easy to read. I see optical sizes as being an essential component of any new text type. The digital medium not only provides an ideal environment for using optical sizes, it also allows them to be produced in a reasonable amount of time, using interpolation in most cases, to generate a full series of size-specific designs.

The reintroduction of optical size as a typographic standard has been a slow process; I expect it will take some time before people familiarize themselves with optical sizes and appreciate their benefits. The problem is that single-size masters have been the norm for so long that both designers and readers have grown accustomed to seeing fonts used at inappropriate sizes. It is really the job of type layout application developers to provide a practical means for their customers to get the right type for the sizes they're using. It's clear that incorporating variable optical sizing into mainstream typography will hinge on whether or not it becomes automated within applications. In a time when great headway has been made to simplify difficult or timeconsuming typesetting tasks, I am disappointed that developers for the leading applications haven't stepped up to the plate on this matter. Once they do, optical sizes will become very easy and natural to use, and more font manufacturers will gain the confidence to develop them.

## DISPLAY <br> (21.6 pts \& above) <br> SUBHEAD <br> (14.1 pts -21.5 pts ) <br> TEXT <br> ( $11 \mathrm{pts}-14 \mathrm{pts}$ ) <br> SMALL TEXT <br> ( $8.6 \mathrm{pts}-10.9 \mathrm{pts}$ ) <br> CAPTION (8.5 pts \& below) <br> Hbg Hbg

From top: Optical sizes shown at 34 point for comparison. Caption and Display sizes shown with height parameter zones.

Other Adobe fonts, such as Garamond Premier, include four optical sizes: Caption, intended to be set below 9 pt ; Regular for 9 to 15 pt ; Subhead for up to 24 pt and Display for larger settings. Arno includes five optical sizes. Can you explain the system behind it?

In serif faces such as Arno it is critical that each text point size be optically calibrated for the demanding task of setting extended text, so that each size is as readable as possible. We decided to include the small text design, as I didn't feel a single optical master adequately covered the full text range.

It would have been ideal to include even more design sizes to fill out the range, especially in the smaller sizes where more optical changes are required. Unfortunately, it is difficult for most users to distinguish between the various optical masters on-screen, and difficult to manage them in complex documents. So as long as people still have to select them manually, it makes sense to offer only the most essential sizes.

## Arno Cyrillic and Greek

One characteristic that clearly sets your recent designs apart from most other typefaces available on the market is a very serious, mature approach to multilingual support. Minion, Warnock and Garamond Premier all include extensive character sets that cover the Latin, Cyrillic and Greek alphabets. In Garamond Premier, you introduced Greek and Cyrillic small caps, and in Arno Pro, you pushed the barrier even further by including some 30 additional Cyrillic letters used in various languages of the ex-Soviet republics, and by designing swash italic capitals for all three scripts. What is your approach to designing the three scripts within one typeface?

In dealing with foreign scripts, I first look to understand their historical roots, so that I'm betterequipped to navigate the thorny divide between
historical authenticity and innovation. While each writing system has distinctive characteristics grounded in its design heritage, multi-lingual type families like Arno call for a degree of design unification across the scripts, so that when mixed within the same document-either within the same text block, or as adjacent translated text-they will harmonize well.

It is also interesting to deal with the unique structural characteristics of each script: While Cyrillic letterforms are mostly regular, with a vertical stress, and without many ascenders or descenders, Greek alphabets are charged with an abundance of animated form; the activity level of Latin script falls somewhere in between. In unifying them, I sometimes feel it necessary to tone down some of the more exuberant qualities of traditional Greek forms, while with Cyrillic, I typically try to introduce organic characteristics wherever I can.

What is the greatest challenge when designing Cyrillic letterforms?

With Arno, the biggest challenge was to design a natural looking humanistic-style Cyrillic that would be pleasant to read. Because the modern Cyrillic alphabet is essentially a constructed invention, deriving much of its form from 18th century Latin typefaces - either whole letters or composite parts-the alphabet has a characteristic rigidity about it.

How did you deal with this problem?

The trick was to design Cyrillic glyphs that appear as if they were rooted in humanistic handwriting-in a sense it is like trying to invent history. Even though several of the Cyrillic forms are derived directly from the Latin, many don't conform readily to the principles of humanistic calligraphy or oldstyle type design. By writing out text with a broad-edged pen,
and by testing the Cyrillic extensions alongside the Latin throughout the design process, I tried to instill humanistic qualities in the Cyrillic fonts that were in line with the rest of the family.

Позвольте оговориться. Я сотласен: че есть животное, по преимуществу сози

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## абвгдежзйклмнопрсту

Slimbach's Cyrillic calligraphy.
I find it intriguing to apply the principles of Western calligraphy to Cyrillic and Greek. Because modern Greek retains many of its more ancient script characteristics, and modern Cyrillic-for the most part-lacks a written heritage, I feel there is a lot of room for experimentation within humanistic and progressive design approaches.

The historical Greek alphabets were by nature more cursive than their Latin contemporaries. In the mid1970s, graphic designers in Greece were quite fond of more stiff, Western-looking Greek typefaces which at that time they perceived as modern - which resulted in Linotype releasing rather "Latinized" Greek versions of Helvetica, ${ }^{\text {nex }}$ Baskerville, Century ${ }^{\text {Ta }}$ and ITC Souvenir. ${ }^{\text {Tw }}$ However, I was told that since then the preference has changed slightly towards more traditional Greek letterforms that draw from the Greek hand rather than imitating Latin type. What do you think?

I'm not so sure that all Greek book designers actually welcomed the Latinized Greek fonts-I've always assumed that this trend was initiated by nonGreek type manufactures, who followed Western conventions of design out of habit.

I believe that we are in a period of reassessment of what a contemporary Greek text typeface should
look like. I sense that many Greek readers neither fully embrace the script's classical heritage, nor do they whole-heartedly buy into Western notions of typographic form. I also don't believe that all Westernization is inherently bad, as the merging of styles is natural to the evolution of type - and this applies even to Greek typefaces. While some type styles lend themselves to a more classical design approach, others sometimes benefit from a more progressive approach to better reflect the spirit of the time. As more new type families incorporate Greek into the mix, it is the task of the type designer to reconcile the practical requirements of combining scripts with the cultural heritage of an ancient and beautifully devised writing system.

Were there historical sources which inspired you while developing the Arno's Greek fonts?

I recall seeing a beautiful cancellaresca formata Greek script annotated in a sixteenth century book spread in a glass display case several years ago. I had no way of determining its exact date, but it was clearly written by a skilled Renaissance scribe. Even though Greek types of the time display an opposing angle of oblique stress, it proved to me that at least some members of the educated elite back then wrote Greek in the chancery style. I wasn't able to photograph a sample, but it inspired me to begin writing Greek in this manner.





## aßjsayng

Slimbach's Greek calligraphy.

Although I'm certainly not the first contemporary designer to produce a humanistic-style Greek type, I worked on developing a personal style of Greek handwriting that served as my primary model for Arno. Having already produced a chancery Greek for Minion Pro, and after gaining further confidence with Greek typeface design with Warnock and Garamond Premier, I felt comfortable moving forward with the design without the aid of further historical or contemporary reference material.

In addition to setting contemporary Greek texts, is Arno appropriate for scholarly publications in classical Greek?

Certainly. Arno contains a complete polytonic set for setting classical Greek. It also includes polytonic Greek small capitals - something new to modern Greek types. Because there is no single prescribed convention for accenting polytonic small capitals, we developed two optional polytonic treatments one without accents, similar to the polytonic capitals, and the other accented like the polytonic lowercase. In developing these two approaches, we received valuable input from a few of our outside Greek language experts, who engaged us in a spirited exchange of ideas, before we settled on the two-option model.
 A $\Lambda$ A MIA MEPA H $\Theta \Theta A N$ ГEPOI

## A $\Lambda \Lambda A$ MIA MEPA H $\Lambda \Theta A N ~ \Gamma E P O I ~ M E ~ E I ~$

## 'AМムÀ MIÀ MÉPA Ȟ $\Lambda \Theta A N$ ГÉPOI MÈ Eİ

Three cases of polytonic Greek with alternate small capital treatment.

Cursive in nature, traditional Greek types rarely had separate upright and sloped styles, but today, typographers often need both "roman" and "italic" typefaces available in several scripts, including Greek. How did you cope with this challenge?

The inherent cursive qualities of traditional Greek script make it more difficult to design an italic variation that has a suitable degree of contrast with the roman. While Latin and Cyrillic have distinct roman and italic styles, Greek script doesn't. By approximating the slope and angularity of the Latin italics, along with making them more compact, an acceptable degree of distinction is present, however the level is not as great as in the other two scripts.

> Plowmen covered with snow and rime Plowmen covered with snow and rime

Even though there is a short history of contemporary designers adapting upright Cyrillic to italic, there is no real Humanist italic tradition in Cyrillic. What were the challenges when designing the Cyrillic italics for Arno?

Adapting Cyrillic to italic can be problematic, as not all the forms lend themselves to a balanced script treatment. True italics, which are essentially a very formal adaptation of a running script, are characterized by the rhythmic flow of cascading and looping strokes, with entry and exit strokes that flow gracefully from one letter to another in the formation of words. While some Cyrillic italic forms are either borrowed directly from the Latin or have a suitable script variation, others have proven more difficult to adapt. Writing both italic and roman Cyrillic with a broad-edged pen helped me work out the more difficult areas. I experimented with different stroke treatments until finally arriving at patterns that worked best for the typeface.

Arno includes swash sets for Cyrillic and Greek, which is a completely novel addition. I'm sure users will be thrilled with the expanded typographic possibilities
that Arno offers in those scripts, and I must congratulate you, both on the decision to include them and on the design itself. How did you approach this particular design task?

This is something I've wanted to try for some time now. A few of my other type families offer swash sets only for Latin, so I thought it would be an interesting challenge to design swash extensions for all three scripts, and providing those enables consistent behavior across the scripts when using the OpenType "swash" layout feature.


Although I had previously seen swash forms used in Cyrillic calligraphy, I had never seen them applied to Greek. I developed all three swash sets for Arno through trial-and-error experimentation with a broad-edged pen. For the most part, I relied on common-sense principles of chancery handwriting to devise swash forms that made sense to me. As with Latin swash forms, I feel there is a degree of creative freedom allowed in Greek and Cyrillic, as long as the glyphs retain their identity, and are compatible in design with the rest of the family. As a follow-up measure, I reviewed the swash forms with our Greek and Cyrillic language experts, who provided suggestions for fine-tuning the designs.

## Arno as an OpenType family

When turning a design into digital type, the different optical sizes, weights, styles and scripts have to be somehow organized into a set of OpenType fonts. Can you describe the logic behind Arno's palette of fonts? As with Garamond Premier, you chose to include a light weight only in the display size. Why?

The Regular roman font (optimized for 12 point) is the core design in the family, to which all the other fonts are calibrated. Because the family's primary function is for setting continuous text, the design parameters of the Regular-such as the weight, degree of contrast, letterfit, etc. - are carefully tuned so that it is as readable as possible. The remaining weights and optical sizes, as well as the italics, relate to the Regular in a supporting capacity, either to organize information or emphasize words.

The light weight is offered in only one optical size, as I find it functions best when used for display purposes. Although there may be a limited opportunity for setting text in a light weight, I feel that if a full range of light sizes were offered, it would more often lead to their improper usage.


Arno Pro is a family of 32 OpenType fonts, but one could say that the family is even larger, because each font includes character sets for different writing systems as well as alternate stylistic sets. How would you describe the way in which the Arno Pro family is organized conceptually? How important are the international standards Unicode ${ }^{\otimes}$ and OpenType in your work?

As you imply, each font in Arno is really a vast repository of glyphs which could have been built as several smaller fonts. These fonts - or glyph collections - are organized and accessed with the aid of both OpenType layout features in applications like InDesign, and language-specific keyboard layouts at the operating system level. Now that it is possible to consolidate what used to be supplemental fonts like expert, swash, and alternate sets into a single Unicode-based font, OpenType technology can step in to act both as the glyph-retrieval mechanism and a regulator of glyph behavior.

What was difficult and time-consuming about designing type families in the past is now much easier to accomplish on a computer. Glyph outlines can be shaped and propagated very quickly, making it practical to reach further with glyph sets. However, now that Unicode and OpenType have entered the picture, the creative potential of type seems almost boundless-large type families like those we produce would not have been practical to make without them. Together, Unicode and OpenType have given type designers the opportunity to explore beyond the restrictions of the past, and to develop type families of broader scope and greater technical sophistication. My current work relies on them so much that I can no longer imagine working in the old manner.

The OpenType font format includes a set of layout features which have a predefined purpose-small caps, fractions, oldstyle figures, standard and discretionary ligatures, swashes, etc. But there are also features such as stylistic sets, whose functionality is not strictly predetermined. How do your fonts make use of all these typographic features?

For the most part, the standard OpenType features suffice for straightforward typesetting. Because they are clearly defined and more intuitive to use than the stylistic sets, I try to work within their limits as much as possible. The stylistic sets arose because we wanted to provide OpenType layout support for non-standard categories of glyphs that a designer might come up with, and to group related alternates which aren't covered by more standard layout features, like small caps or oldstyle figures. The stylistic sets give designers the freedom to create unique glyphs, and users a better way to access them. The only drawback is that the sets are identified by generic names in the user interface (e.g. set 1 , set 2 ); there is, however, information about each set in the font's "ReadMe" file.

The stylistic sets in Arno isolate glyphs normally batched in the historical alternates feature, like the long-tailed $Q$ and double-splayed $W$. They also make available the Cyrillic and Greek alternates and the two polytonic small cap treatments.

In my early career, I produced non-standard alternate glyphs simply to provide typographic richness beyond the limited encodings of the time-but they weren't very easy to use. Now I'm much more concerned about connecting glyphs to OpenType layout features so that they can be used effectively. This means tailoring glyphs more for global, rather than discretionary usage.

The way we approached the Caflisch Script ${ }^{\circledR}$ typeface, which I began in 1992, is a good example of this change in direction. I had produced a significant set of alternate glyphs and ligatures to represent the variant forms of each letter found in Max Caflisch's handwriting. As with most running scripts, his

## The correct sets of stylistic standards The correct sets of stylistic standards

Words set in Caflisch Script Pro, both with the contextual alternates feature turned off (top) and in the default 'on' setting.
handwriting possesses natural letter variations and different kinds of joining behavior, depending on the letter sequence. It would be unreasonable to expect people to apply these contextual variants on their own; it was clear we needed intelligent application support that would automatically implement the alternates according to a set of prescribed instructions, so that the correct joining behavior and stylistic variations would appear automatically as the user typed. Because this kind of application support wasn't in the realm of possibility at the time, we decided to release a font with a basic subset of the characters in 1993. Another ten years passed before we could finally release the OpenType version of the family, with the complete character set and operational contextual alternates.

Contextual alternates aren't just for connecting scripts; they can also be used effectively in conventional text families. In Arno, this feature is designed to avoid awkward collisions between particular letter pairs, and to add variety to the text's appearance.

Arno's swash feature was conceived to function more as an alternate font selector than as a typical style feature: With "swash" selected, the default ligatures and contextual alternates work in conjunction with the swash glyphs to ensure that they set cleanly as a well-balanced and self-contained font style.

## peppered visions \& zealous gaggles peppered visions \& zealous gaggles

Default text in Arno Pro (top) and with the swash feature enabled.
Expanding and refining feature support in our applications is an ongoing process. We're constantly working on ways to streamline the implementation of non-standard glyphs. With each new family, we've been raising the bar in terms of offering rich glyph sets and dynamic OpenType feature support.

|  |  |
| :---: | :---: |
|  | Timapx $\mathrm{I}_{\text {I TOYT }}$ |
|  | TIMAPX |

The contextual rules in Arno are used for replacing accented Greek glyphs with unaccented ones when setting All Caps or Small Caps text, and help display the preferred form of the iota addscript.

So on one hand, Unicode and OpenType provide you with some standards with regard to character sets and typographic features, but on the other hand, they also allow for open-ended creativity?

Yes. While we at Adobe tend to work within the practical typographic realm, I've seen work by other designers who have exploited OpenType technology in more experimental ways, particularly with the creative use of contextual alternates and ligatures.

Although most of these fonts are on the playful side, they demonstrate the flexibility of the technology.

## EXPERIMENTALIST EXPERIMENTARLSI

House Industries' Ed Interlock, ${ }^{\text {TM }}$ designed by Ed Benguiat and Ken Barber, demonstrates a novel application of contextual alternates - shown first without contextual ligatures, and with contextual ligatures enabled.

OpenType is a powerful typographic fuel which needs a suitable engine. Adobe InDesign was the first application to support the various layout features included in OpenType fonts. Are you happy with the way your fonts can be used with InDesign today?

For the most part I am. The product teams at Adobe have made tremendous progress in the last few years toward providing world-class typographic and linguistic support in their applications. Even though they've made dramatic progress, there is still untapped potential to be realized. The InDesign team has only so many resources available for implementing new features, so in the short term some things can fall by the wayside, as with any area of application features.

The Adobe type group is known for its excellent font production and quality control. How was it working with the rest of the type staff and outside consultants?

As I don't take much interest in the technicallyoriented production work, I appreciate being able to work with a skilled staff of production people. Since I began making digital type more than twenty years ago, I've had a persistent love/hate relationship with computers; I much prefer design-oriented work and thinking about glyph usage to the everyday business of technical production.

While other type staff members help out at various points, it is usually late in a project that they get involved on a daily basis. The production work involves things like finalizing glyph names
and encoding - this includes making sure the family meets our current glyph standard for new fonts, creating accented glyphs, setting up kerning, and implementing OpenType layout features. Our newest staff member, Miguel Sousa, performed most of this work for Arno; he also single-handedly revised our kerning process, making it much less of a nightmare to kern large type families.

In addition to the technical matters, it has become a regular part of my process to consult with language experts on the Cyrillic and Greek extensions. I received valuable advice on Arno's Cyrillic designs from Maxim Zhukov and Jovica Veljović, and on the Greek from Gerry Leonidas.

Toward the very end of the production process, as test versions of the fonts become available to our registered beta testers, we receive feedback that often gives us information about problem areas we may have overlooked. In the case of Arno we received technical advice about the polytonic Greek behavior from John Hudson, David-Artur Daix and Yannis Haralambous, as well as a few design-related recommendations from John and others, which led to some last-minute design tweaks.

Did you receive any assistance with the editing of glyph outlines, or with other things like kerning and accent placement?

A bit. Miguel did a first pass at most of the kern pair positioning, and Ernie March, our Quality Engineering expert, helped with the composite accent positioning, but I was responsible for the rest of the outline editing and design production work.

Did the family turn out as you originally envisioned it?

No, not entirely. I initially envisioned something significantly different. The early drafts were clearly more Venetian, with a fairly large $x$-height and a highly stylized appearance. I was actually very
far along with the family before becoming disenchanted with that direction. Even though I felt it was interesting from a design perspective, I didn't see it as being highly useful as a multipurpose text family. I eventually redrew the entire design, retaining what I liked about the original concept, while making a more elegant and practical text family with a classical x-height.

## Hamburgefonts Hamburgefonts Hamburgefonts Hamburgefonts

 $\alpha \beta \gamma \delta \varepsilon \zeta \eta \theta \iota \kappa \lambda \mu \nu \xi \alpha \beta \gamma \delta \varepsilon \zeta \eta \theta \iota \kappa \lambda \mu \nu \xi$ $\alpha \beta \gamma \delta \varepsilon \zeta \eta \theta \iota \kappa \lambda \mu \nu \xi \alpha \beta \gamma \delta \varepsilon \zeta \eta \theta \iota \kappa \lambda \mu \nu \xi$ абвгдежзйклмн абвгдежзйклмн абвгдежзйклмн абвгдежзйклмн ABCDEFGHIJKLMNOPQR ABCDEFGHIJKLMNOPQRAn early draft of Arno (shown first, in blue) compared with the finished design.

Overall, what are the most rewarding and what are the most demanding aspects of designing type, especially when embarking on such ambitious projects?

It has been rewarding to be a part of the desktop typography revolution, and to witness Adobe's technology and design standards being adopted throughout the industry. It is also gratifying to see so many of our typefaces being used on a daily basis throughout the world. I feel very fortunate to have entered the field at such an exciting time in the craft's history, and to be working at a company that is so committed to the advancement of digital typography.

While I've been provided the opportunity to design type within this environment, it has been a challenge to sustain the focus required to repeatedly
produce the larger type families. Producing superfamilies is not easily done as a part-time activity, or at a leisurely pace; I've found that they require many months of focused attention to complete them in a timely fashion.

The responsibility of making large type families can also be a stressful proposition. Good text design is an esoteric art, and requires a significant investment of time. Adobe counts on us to produce work worthy of this investment, and living up to this trust can be a real burden.

I know you're a titan of work. Do you have a new project in mind?

Yes, I currently have a few irons in the fire, but it's probably too soon to talk about them. I've learned from experience that it's not always wise to discuss projects in their early stages, as they tend to evolve, or fade away all together. I always seem to have more projects going on than I have the time or interest to complete. $\mathbb{K}$

Adam Twardoch is product and marketing manager at Fontlab Ltd. He also works as a consultant specializing in multilingual typography and font technology for Linotype, MyFonts and other companies including Adobe Systems, Bitstream, Corel Corp., Microsoft and Tiro Typeworks. Adam frequently writes and lectures about typography and digital type design.

Robert Slimbach has been designing text types at Adobe Systems since 1987. He has won several awards for his digital typeface designs, including the Charles Peignot Award from the Association Typographique Internationale, and numerous TDC 2 awards from the Type Directors Club.

## A multi-featured OpenType family

The OpenType font format allows any font to contain layout features - instructions which specify glyph substitutions and positioning in the font, providing the potential for more typographic power and flexibility than ever before. The Arno type family has many of these features which - when enabled by applications such as Adobe InDesign, Adobe Illustrator ${ }^{\circledR}$, and Adobe Photoshop - make glyph substitutions either automatically or at the user's discretion. The substitutions can be as simple as two glyphs becoming a ligature, or as complex as an alternate letterform appearing within a certain context, before and/or after other letters or letter sequences. Many of the OpenType layout features found in the family are described here.

| Tabular lining | Tabular oldstyle |  |
| :--- | :--- | :--- |
| $821,076.95$ | $821,076.95$ | $821,076.95$ |
| $594,810.61$ | $594,810.61$ | $594,810.61$ |
| $901,530.34$ | $901,530.34$ | $901,530.34$ |

ALDUS MANUTIUS (1449/50-1515) Griffo and his French followers in the 1530 s and 1540 introduced practical improvements

Sometimes i rambled to pine groves, standing like temples, or like fleets at sea, full-rigged, with wavy boughs, and rippling


| $25 / 64$ | $68 / 1,200$ | $34 / 1,000,000$ |
| :---: | :---: | :---: |
| $25 / 64$ | $68 / 1,200$ | $34 / 1,000,000$ |

Tabular figures
Tabular figures, both lining and oldstyle, have equal widths to ensure alignment of numeric data in tables and other structured layouts. "Stacked" numbers will align vertically and have a more pleasing, consistent appearance. Because the tabular lining figures function reasonably well in all situations, they are the default figures in Arno Pro.

## Proportional figures

Unlike the tabular figures, these figures are set on varying widths and kerned to each other for improved spacing. The proportional oldstyle figures are designed to be compatible with normal lowercase text, while the proportional lining figures work well in all-capital settings.

## Small capitals

These letters are smaller versions of the normal capitals, designed to be less-obtrusive when used within lowercase text. OpenType instructions simplify the application of small capitals for both uppercase and lowercase letters. Arno Pro has roman and italic small capitals for the Latin, Greek, and Cyrillic scripts.

## Superscript, subscript, and ordinals

Arno Pro contains a full range of superiors and inferiors, and OpenType instructions for substituting them. Both letters and numbers are easily transformed into true, designed superiors for ordinals and notations. Numbers may also be transformed into subscript inferiors. Superior letters are used in mathematics and in English, French and Spanish for abbreviating words such as second ( $\left.2^{\text {nd }}\right)$, Madame ( $\mathrm{M}^{\mathrm{me}}$ ), Compagnie ( $\mathrm{C}^{\mathrm{ie}}$ ), and segundo ( $2^{\mathrm{o}}$ ).

Numerators, denominators \& fractions
Users can easily create fractions with the OpenType fraction feature. Arbitrary numbers separated by a slash are transformed into true fractions with the type family's numerators and denominators.

Standard ligatures
Ligatures are designed to appear by default，replacing awkward character pairs（or sequences）automatically．Arno Pro contains ligatures for Latin and Greek scripts，for common letter pairs and also for special or historical characters in Latin and Greek scripts．

## Discretionary ligatures

Arno Pro＇s discretionary ligatures are historical forms typically displaying the connecting strokes of calligraphic writing．They may be used to achieve a decorative or historic look．

## Contextual alternate glyphs

Contextual alternates，like ligatures，are designed to appear auto－ matically，but only in certain contexts－that is，when preceded or followed by certain specified glyphs．Their purpose is either to correct awkward letter combinations or to add variety of form．In a text typeface，these glyphs function less dramatically than in a more active typeface，such as a running script．

Stylistic alternate glyphs \＆stylistic sets
These alternate glyphs in Arno Pro are available when special ending effects are desired，or when an historic or antique look is needed．Alternate forms are also available for setting classical Greek and Cyrillic texts．Using OpenType stylistic sets，groups of alternates can be activated together．

Swash capitals
Arno Pro contains a complete set of Latin swash capitals in Latin， Greek \＆Cyrillic for all italic fonts．These calligraphy－inspired forms were adapted to be compatible with both the normal capital forms and the lowercase．Swash capitals can be used effectively for expressive passages of text．

## Ornaments

By grouping ornaments in a single OpenType feature，the varied ornaments in Arno Pro can be easily browsed and selected．

## Optical sizes

Arno Pro contains five ranges of optically－adjusted fonts：caption， small text，regular text，subhead，and display．The fonts in each point size range have been optically tuned to the specific design requirements of their range so that type will be legible and readable at all sizes．

## Language coverage

Using character encodings established by the Unicode Standard， OpenType allows a variety of languages and scripts to be supported in a single font．Arno contains Latin，Cyrillic and Greek scripts， and supports many languages which use those scripts，such as Vietnamese and numerous Central European languages．

# TT Th ffb ffk fft fifk ft ff fh fifk fl ft tr $\gamma \lambda$ <br> TT Th ffb ffk fft fifkft $\iiint h \int i f k j l f t t t r \lambda$ <br> ffi ff ffl ff fiff fl ft fr 

ct ft sp st ct Uft sp st ll sp<br>Action special tall disturb after hello aspect

I．Q．Quality<br>$\mu \dot{\varepsilon} \lambda \eta \mu \dot{\varepsilon} \lambda \eta$ ä $\theta \lambda$ дov $\ddot{\theta} \theta \lambda o v$<br>$\alpha{ }_{\alpha} \lambda \lambda_{0}{ }^{\alpha} \lambda_{0}{ }_{0} \sigma \gamma \gamma \varepsilon v \tilde{\eta} \sigma v \gamma \varepsilon v \tilde{\eta}$

QWadeghm．n．rttuz\＆\＆＊e\％ Qadeghmnrtwoyz\＆Eよう\％

## ПАNTHı ПANTH два слова два слова 

$\mathcal{A B C D E F G H 1 J K \mathcal { I }} \boldsymbol{\mathcal { H N O P }}$ $\mathcal{A} \mathcal{B} \lambda \mathcal{E} Z \mathcal{H} \Theta 1 \mathcal{A} \mathcal{N} \approx 0 \mathcal{T}$ $\mathfrak{A T B J D E} 火 3 \mathcal{U} \check{U} K \mathfrak{A} \mathcal{H} \mathcal{H}$


$\underset{\substack{\text { Hbga } \\ \text { caption }}}{\substack{\text { Hbga } \\ \text { small text }}} \underset{\substack{\text { text }}}{\mathrm{Hbga}} \underset{\text { subhead }}{\mathrm{Hbga}} \underset{\text { disply }}{\mathrm{Hbga}}$

# Hbga Hbga Hbga Hbga Hbga 

Optical sizes shown at actual size（top），and scaled for comparison．

Lidských Práv Droits de l＇Homme<br>mänskliga rättigheterna ludských práv<br>nhân quyền $\delta ı \kappa a ı \omega \mu a ́ \tau \omega v ~ \tau o v ~ a v \theta \rho \omega ́ \pi o v$<br>Praw Człowieka Ýnsan haklarý<br>прав человека Human Rights

## ROMAN GLYPH SET

Latin
ABCDEFGHIJKLMNOPQQRSTUVWWXYZ\&\&E\&゙abcdefghijklmnopqrstuvwxyz
 fb fh fifk flfffifflitta dergh.m.n.rttuz



 Ẃ Ŵ Ẅ Ẁ Ý Ÿ Ŷ Ỳ Ȳ Ỵ Ỷ Y̌ Ž Ź Ż 庄
, . ,







Punctuation, symbols and ornaments

Cyrillic

## АБВГГАДЕЖЗИЙК ЛЛМНОПРСТУФХЦЧШЩЪЫЬЭЮЯЁЂЃЄSIÏЈ 





Greek (monotonic)



Greek (polytonic)










## ITALIC GLYPH SET

Latin
ABCDEFGHIJKLMNOPQQRSTUVWWXYZ\＆゙\＆ $\mathcal{G}$ ぶabcdefghijklmnopqrstuvwxyz
 Jbjhfifklljffliflfttadeghmnrtwoz













Punctuation，symbols and ornaments




Cyrillic
АБВГГАДЕЖЗИЙКАЛМНОПРСТУФХЦЧШЩЪЫЬЭЮЯЁ ЂЃЄSIÏЈ





Greek（monotonic）




Greek（polytonic）








Caption
Italic Caption
Semibold Caption
Semibold Italic Caption
Bold Caption
Bold Italic Caption

Small text fonts ( $8.6 \mathrm{pts}-10.9 \mathrm{pts}$ )

SmText
Italic SmText
Semibold SmText
Semibold Italic SmText
Bold SmText
Bold Italic SmText
text fonts
( $11 \mathrm{pts}-14 \mathrm{pts}$ )
Regular
Italic
Semibold
Semibold Italic
Bold
Bold Italic

SUBHEAD FONTS
( $14.1 \mathrm{pts}-21.5 \mathrm{pts}$ )
display fonts (21.6 pts \& above)

Subhead
Italic Subhead
Semibold Subhead
Semibold Italic Subhead
Bold Subhead
Bold Italic Subhead

Light Display
Light Italic Display
Display
Italic Display
Semibold Display
Semibold Italic Display
Bold Display
Bold Italic Display

 than at such a time;

## Arno Pro Text Settings $\mathcal{E}$ Sample Art

## Христофор и Егорушка сидели уже в большой, мрачной и пустой

дубовым столом. Этот стол быи почти одинок, так как в большой комнате, neighbor in the intervals of a gentle rain-storm in August, when, both air дивана с дырявой клеенкой да трех стульев, не быио никакой другой мебели. but the sky overcast, mid-afternoon had all the serenity of evening, and the всякий решился бы назвать стульями.
 and was heard from shore to shore. A lake like this is never smoother
 and the clear portion of the air above it being shallow and darkened by clouds


## CAPTION WITH SEMIBOLD CAPTION $7 / 10$

This small lake was of most value as a neighbor in the intervals of a gentle rain-storm in August, when, both air and water being perfectly still, but the sky overcast, mid-afternoon had all the serenity of evening, and the wood thrush sang around, and was heard from shore to shore. A lake like this is never smoother than at such a time and the clear portion of the air above it being shallow and darkened by clouds, the water, full of light and reflections, becomes a lower heaven itself so much the more important. From a hill-top near by, where the wood had been recently cut off, there was a pleasing vista southward across the pond, through a wide indentation in the hills which form the shore there, where their opposite sides sloping toward each other suggested a stream flowing out in that direction through a wooded valley, but stream there was none. That way I looked between and over the near green hills to some distant and higher ones in the horizon, tinged with blue. Indeed, by standing on tiptoe I could catch a glimpse of some of the peaks of the still bluer and more distant mountain ranges in the northwest, those true-blue coins from

## CYRILLIC

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## GREEK

 кaì $\mu \varepsilon \gamma \varepsilon ́ \theta \eta$ кaì $\tau \alpha ̀ ~ \tau o v ́ \tau \omega v ~ o v ̃ \sigma \alpha ~ \pi \alpha ́ \theta \eta ~ \kappa \alpha i ̀ ~ \tau a ̀ \varsigma ~ \kappa ı v \eta ́ \sigma \varepsilon ı, ~ ह ै \tau ı ~ \delta \varepsilon ̀ ~ \pi \varepsilon \rho i ̀ ~ \tau \alpha ̀ \varsigma ~$









 каi тàs $\pi \rho о \sigma \eta \gamma \circ \rho i ́ a \varsigma ~ \tau o ̀ v ~ \tau \rho o ́ \pi о v ~ \tau o v ̃ \tau o v \cdot ~ \tau a ̀ ~ \gamma a ̀ \rho ~ \delta o ́ o ~ a ̈ \mu \varphi \omega ~ \mu \varepsilon ̀ v ~ \lambda \varepsilon ́ \gamma о \mu \varepsilon v ~ к а i ~$





CAPTION WITH BOLD CAPTION $7 / 10$
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## CAPTION WITH SEMIBOLD CAPTION $8 / 11$

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Комната казалась мрачной. Стены были серы, потолок и

## GREEK













 $\eta \gamma \circ \rho i ́ a s ~ \tau o ̀ v ~ \tau \rho o ́ \pi o v ~ \tau о \tilde{v} \tau o v \cdot \tau \alpha ̀ ~ \gamma \grave{\alpha} \rho$ Sv́o ả $\mu \varphi \omega \mu \varepsilon ̀ v \lambda \varepsilon ́ \gamma o \mu \varepsilon v$ каì


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Комната казалась мрачной. Стены были серы, потолок и
















Small text with semibold small text $10 / 13$
This small lake was of most value as a neighbor in the intervals of a gentle rainstorm in August, when, both air and water being perfectly still, but the sky overcast, mid-afternoon had all the serenity of evening, and the wood thrush sang around, and was heard from shore to shore. A lake like this is never smoother than at such a time; and the clear portion of the air above it being shallow and darkened by clouds, the water, full of light and reflections, becomes a lower heaven itself so much the more important. From a hill-top near by, where the wood had been recently cut off, there was a pleasing vista southward across the pond, through a wide indentation in the hills which form the shore there, where their opposite sides sloping toward each other suggested a stream flowing out in that direction through a wooded valley, but stream there was none.
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## GREEK















## Dа и вся местность не походила на вчераинюю.

SMALL TEXT WITH BOLD SMALL TEXT 10/13
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GREEK














Холмов ужке не бььо, а всюду, куда ни взглянешь

REGULAR WITH SEMIBOLD $12 / 15$
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## GREEK










 $\tau o ̀ v \tau \rho o ́ \pi \sigma v \tau \sigma \tilde{v} \tau 0 v \cdot \tau \alpha ̀ ~ \gamma a ̀ \rho ~ \delta v ́ o ~ a ̉ \mu \varphi \omega ~ \mu \Sigma ̀ v ~ \lambda \varepsilon ́ \gamma o \mu \varepsilon v ~ \kappa a i ̀ ~ \tau o v ̀ \varsigma ~ \delta v ́ o ~ a ̉ \mu \varphi о \tau \varepsilon ́ \rho o v \varsigma, ~ \pi \alpha ́ v \tau a \varsigma ~ \delta ' ~$

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REGULAR WITH BOLD $12 / 15$
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## GREEK












## Light and Reflections

A gentle rain-storm in August Stream Flowing THE WOOD THRUSH SANG AROUND The Serenity of Evening
A lake like this is never smoother

Заливало горизонт золотом Непонятно и странно Toкрbimas nblルbた

## КОлОКОлЬНИ И

 Широко шагающие люди Пялило свои лучи во все стороны $\tau \omega v \grave{\alpha} \tau 0 \lambda \grave{\alpha} \tau \tilde{\omega} v \sigma \omega \mu \alpha ́ \tau \omega \nu$ $\pi \alpha \rho a ̀ ~ \tau \tilde{\eta} S ~ \varphi u ́ \sigma E \omega S$
 $\Sigma \omega \prime \mu \alpha \tau \alpha \kappa \alpha i ̀ \mu \varepsilon \gamma \varepsilon ́ \theta \eta$ Фriei ǐneztatan Ta Tpia Пanta

## Alissa Bernhard Caprice Derrick Erica Franklin Guinevere Farold Imogene Jason Kamelia Lawrence Miranda Nicholas Olivia Phillip Querida Rashad Sumiko Thomas Ursula Vincent Willow Xiomar Yvonne Zachary

This small lake was of most value as a neighbor in the intervals of a gentle rain-storm in August, when, 6oth air and water being perfectly still, but the sky overcast, mid-afternoon had all the serenity of evening, and the wood thrush sang around, and was heard from shore to shore. A lake like this is never smoother than at such a time; and the clear portion of the air above it being shallow and darkened by clouds, the water, full of light and reflections, Gecomes a lower heaven itself so much the more important. From a hill-top near by, where the wood had Geen

# Alissa Derrick Erica Franklin Nicholas Sumiko Ursula 

$\mathcal{A l i s s a}$ Bernhard Constance Derrick Erica Franklin Gayle Harold Imogene Jason Kamelia Lawrence Miranda Nicholas Olivia Phillip Querida Rashad Sumiko Thomas Ursula Uincent Winifred Xiomar Yvonne Zachary
Жанна Зиновий Uгорь Калерия Любомир Мирослава Никифор
Онуфрий Лульхерия Ростислава Серафим Ламара Ульян фелицата
Христофор Чеслав Элеонора ЭОрий SLрослава

Немного погодя Кузьмичов, о. Христофор и Егорушка сидели уже в большой, мрачной и пустой комнате за старым дубовьм столом. Этот стол бьл почти одинок, так как в большой комнате, кроме него, ииирокого дивана с дьрявой клеенкой да трех стульев, не бьло никакой другой мебели. Dа и стулья не всякий решился бы назвать стульями. Это было какое-то жалкое подобие мебели с отжившей свой век клеенкой и с неестественно сильно загнутьми назад спинками, придававиими стульям большое сходство с детскими

# Dорофей Канна Любомир Ламара Ульян Фелииата 

 Онуфрий Лульхерия Ростислава Серафим Ламара Ульян фелийта Христофор Чеслав Элеонора ЭОрий Sцослава












#   




# Simon Rhode ARCHITECT 



# Pannartz \& Miller FINANCIAL GROUP 

## AnNABELLE'S Chocolates

## Серафим

## Стефан Маркус

## Пражский камерный оркестр

Оригинальная композиция Стефана Маркуса Пражский камерный оркестр,
под управлением Кассандры Аньелли
Серафим

[^4]
# Café Bellagio 

## Wine by the Glass

## CHAMPAGNE Non-Vintage Brut, Reims

A complex nose of apple, citrus, and caramel followed by crisp full flavors with earthy cherry and citrus notes. $\$ 12.00$

## SAUVIGNON BLANC Napa 1998

Medium body with refreshing minerality, crisp and balanced, combining tree-fruit flavors with melons and flowers. $\$ 7.00$

## CHARD ONNAY Russian River, Sonoma 1999

A full-bodied and ripe wine with aromas of pear, apple, and caramel. Creamy flavor with hints of smoky, tropical fruit. $\$ 8.00$

PINOT NOIR Russian River, Sonoma 1997
Complex, with contrasting earth and fruit notes with hints of leather, figs, plums and cranberries, all with a long, rich finish. $\$ 9.00$

## CABERNET SAUVIGNON Napa Valley 2001

Dense and full-bodied, with deep purple color and a sweet nose of cassis intermixed with licorice, graphite, and smoky oak. \$10.00

## CHIANTI CLASSICO Riserva, Tuscany 1996

Intense ruby red color, with hints of vanilla and wood in the aroma.
Dry and well balanced, with notes of spices and wild berries. $\$ 8.00$

## Lucca's

- Napoletana

Tomato, anchovies, capers, hot peppers, olives and oregano
10.00

- Margherita

Tomato, fior di latte mozzarella, basil and parmigiano 11.00

- Salsiccia

Housemade fennel sausage, tomato, bell peppers, onions and mozzarella 13.25

- New Haven Clam

Cherrystones, tomato, oregano, pecorino and hot peppers 16.00

- Broccoli Raab

Broccoli raab, ricotta, oven-dried tomatoes and mozzarella 12.75

- 4 Formaggi

Mozzarella, fontal, provolone and pecorino 12.25

## \& pasta

- Spaghetti with plum tomatoes, garlic, extra virgin olive oil 8.00 / 11.00 and peperoncini
- Bucatini with sardines and Calabrian chiles 14.00
- Saffron risotto with oxtail ragu 14.00
- Mint tagliatelle with hedgehog mushrooms and crème fraîche 14.00
- Tripe alla Fiorentina 8.00


## - insalada

- Little gem lettuce with Montasio frico and lemon-anchovy vinaigrette 9.00
- Fresh-picked Dungeness crab with Belgian endive and grapefruit 13.00
- Insalata del campo - Bitter greens, walnuts, parmigiano and 9.00 balsamic vinaigrette


# К.П.Каßáøทs <br> $\Sigma \Upsilon \Lambda \Lambda О Г Н$ ПОІНМАТ $\Omega$ N 

I $\Theta$ AKH a.e.
АӨŋ் $\nu \alpha, 2007$

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## Acknowledgments

Specimen book design and production by Robert Slimbach, Miguel Sousa and Christopher Slye.
The "Caffè di Liliana" sample art on page 40 is based on a design by Lily Lee. The "Constantine P. Cavafy" sample art on pages 44 and 45 was designed by John Hudson. The "Lucca's" sample art on page 41 is based on a design by Cheryl Singletary. The photograph used in the sample art on page 41 is by Robert Slimbach. Anton Chekhov text sample selection and Russian translation of the sample art on page 41 by Maxim Zhukov. All specimen booklet texts edited by the Adobe type staff and Adam Twardoch.

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## Latin, Cyrillic and Greek texts

The Latin text is from an excerpt from the book Walden, Henry Thoreau's autobiographical story of life in the woods, published in 1854 . Henry David Thoreau (1817-1862) was an American essayist, poet, and practical philosopher as well as one of the leading personalities in New England Transcendentalism. His Civil Disobedience (1849) influenced Gandhi and Martin Luther King, Jr.

The Russian text is from Anton Chekhov's The Steppe, published in 1888. Anton Pavlovich Chekhov (1860-1904) is considered the father of the modern short story and of the modern play. While his works reflect the frequently turbulent developments specific to his homeland, their lasting appeal lies in his talent for exploring universally human situations with grace and dexterity.

The Greek text sample is an excerpt from On the Heavens and Earth written in 350 b.c.e. by the Greek philosopher and scientist Aristotle (384-322 в.c.e.). A pupil of Plato in Athens, and tutor of Alexander the Great, Aristotle's work in organizing all knowledge of his time into a coherent whole served as the basis for much of the science and philosophy not only of Hellenistic and Roman times, but also of the Middle Ages.

## Technical and legal information

This booklet was produced with Adobe InDesign and Adobe Photoshop software and printed in an edition of 2,500 copies at Watermark Graphics, San Francisco, California, in July 2007. The text paper is 80 pound Starwhite Vicksburg Archiva, and the cover wrap is Synergy, Urban Gray, 80 pound cover. All primary specimen book texts are set in the Regular weight of Arno Pro.
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[^0]:    Venetian and Aldine characteristics in Arno.

[^1]:    From top: Ancient Roman capitals (Trajan ${ }^{\ominus}$ typeface from Adobe) and upright humanistic script.

[^2]:    Above: Francesco Griffo's first roman font for Aldus Manutius (full page at actual size). Aldus Manutius, Venice, 1495-1496. Pietro Bembo, De Aetna. Image courtesy of the Bodleian Library, University of Oxford.

[^3]:    Slimbach's roman style calligraphy.

[^4]:    1. Часть I Аля скрипки, ударных и струнных инструментов

    8:21
    2. Часть II Аля ударных и струнных инструментов 10:27
    3. Часть III Аля ударных и струнных инструментов $\quad 12: 45$
    4. Часть IV Аля ударных, двух фортепиано и струнных инструментов 7:38
    5. Часть V Аля скрипки, ударных и струнных инструментов $16: 98$
    6. Часть VI Аля ударных и струнных инструментов $12: 62$

